



## Full wwPDB EM Validation Report ⓘ

Nov 7, 2022 – 10:01 AM JST

PDB ID : 5GKY  
EMDB ID : EMD-9518  
Title : Structure of RyR1 in a closed state (C1 conformer)  
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.  
Deposited on : 2016-07-07  
Resolution : 3.80 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev43  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

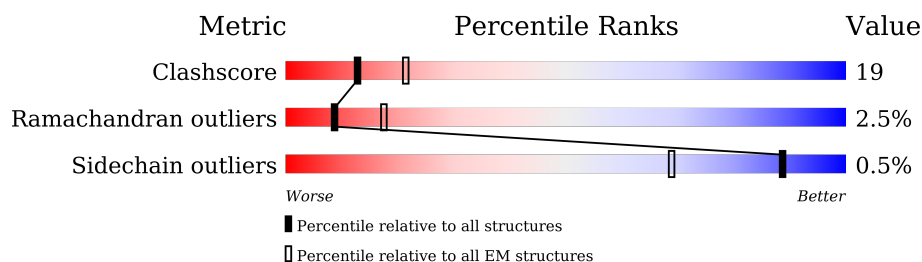
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.80 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	5037	<p>18% 46% 26% 27%</p>
1	C	5037	<p>18% 46% 26% 27%</p>
1	E	5037	<p>18% 46% 26% 27%</p>
1	G	5037	<p>18% 46% 25% 27%</p>
2	B	108	<p>16% 56% 43%</p>
2	D	108	<p>17% 56% 43%</p>
2	F	108	<p>17% 56% 43%</p>
2	H	108	<p>16% 56% 43%</p>

## 2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 111036 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		
1	C	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		
1	E	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		
1	G	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	D	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	F	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	H	107	Total	C	N	O	S	0	0
			832	527	146	155	4		

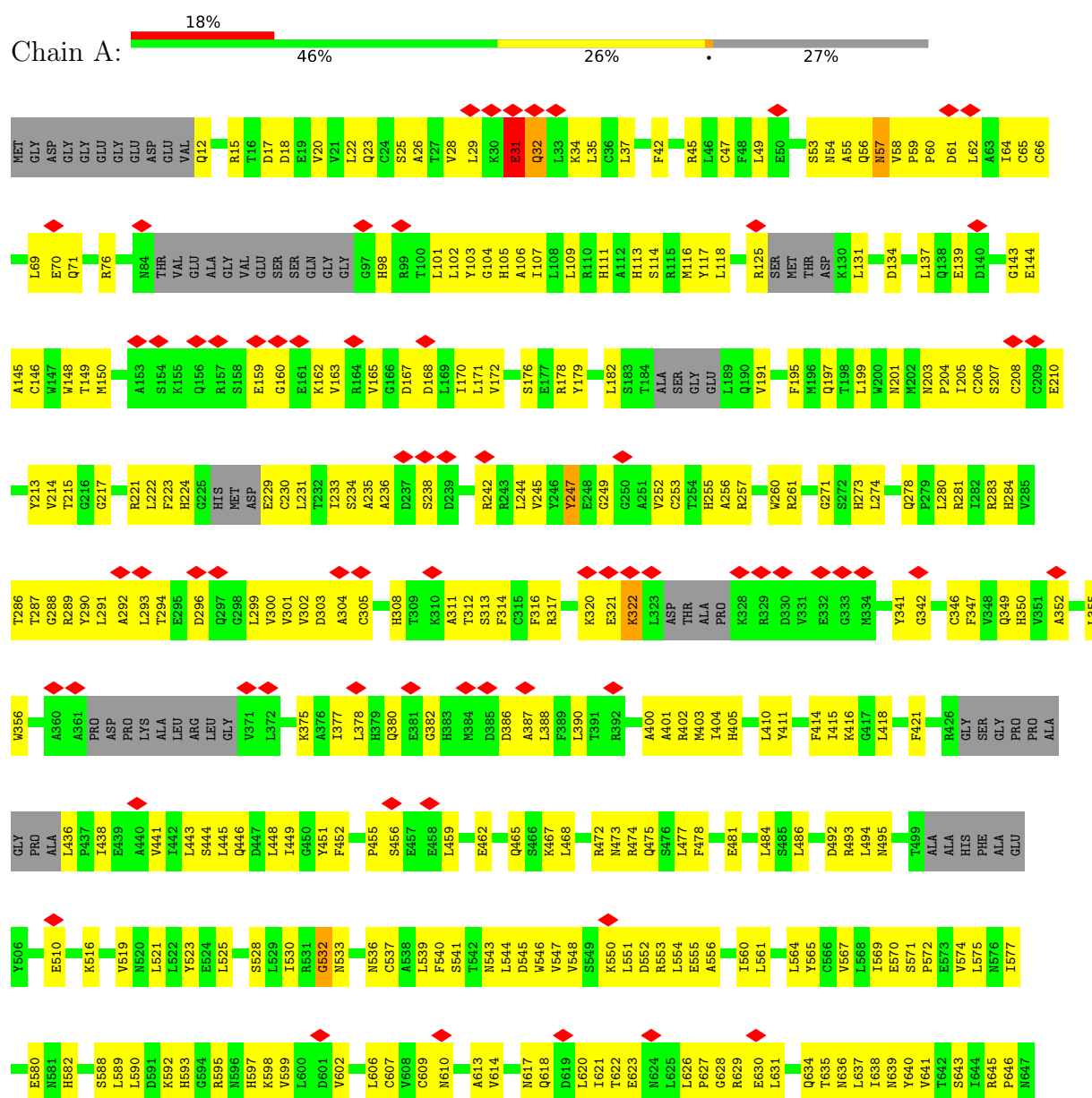
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
3	A	1	Total	Zn	0
			1	1	
3	C	1	Total	Zn	0
			1	1	
3	E	1	Total	Zn	0
			1	1	
3	G	1	Total	Zn	0
			1	1	

### 3 Residue-property plots

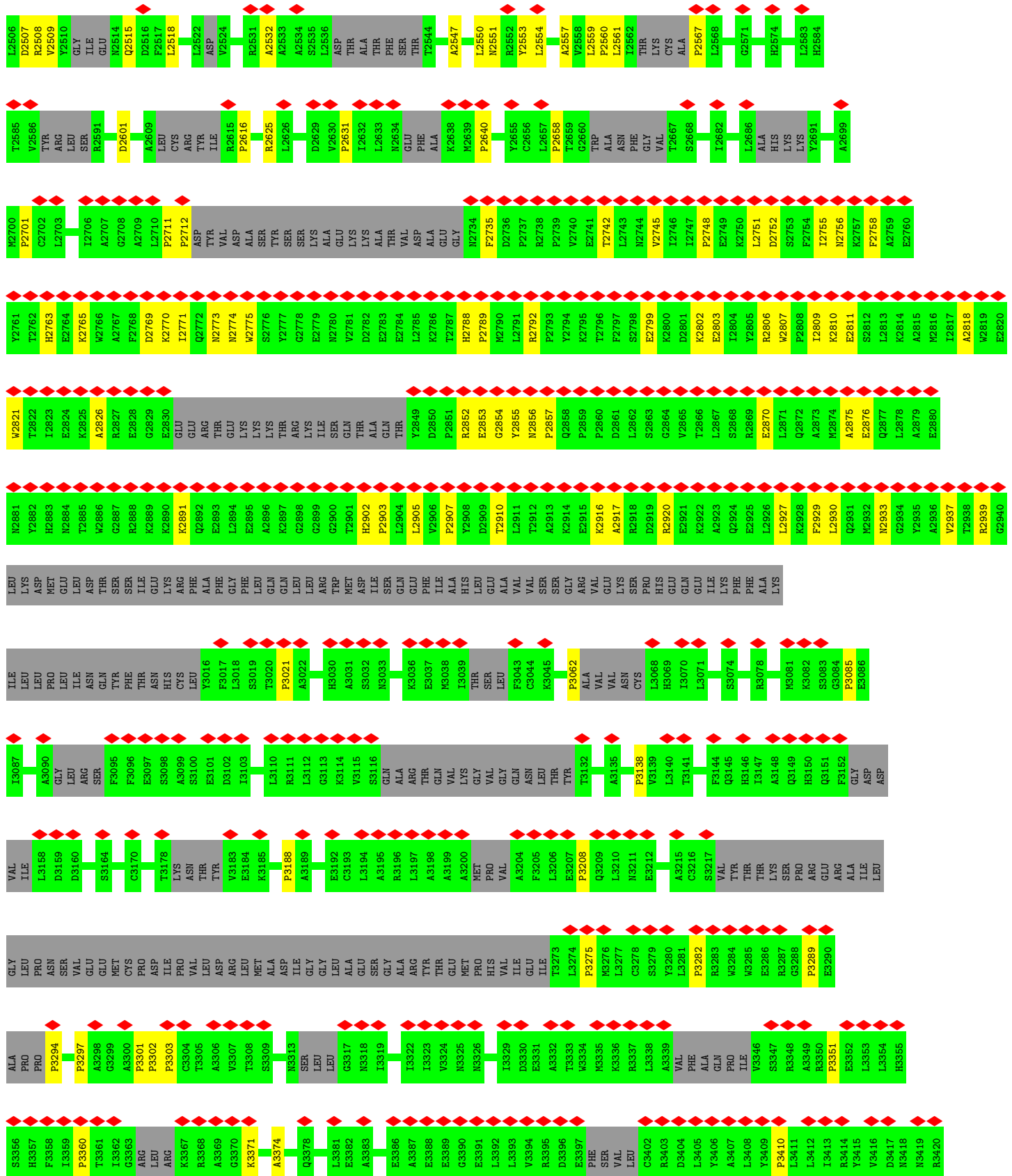
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

#### • Molecule 1: Ryanodine receptor 1



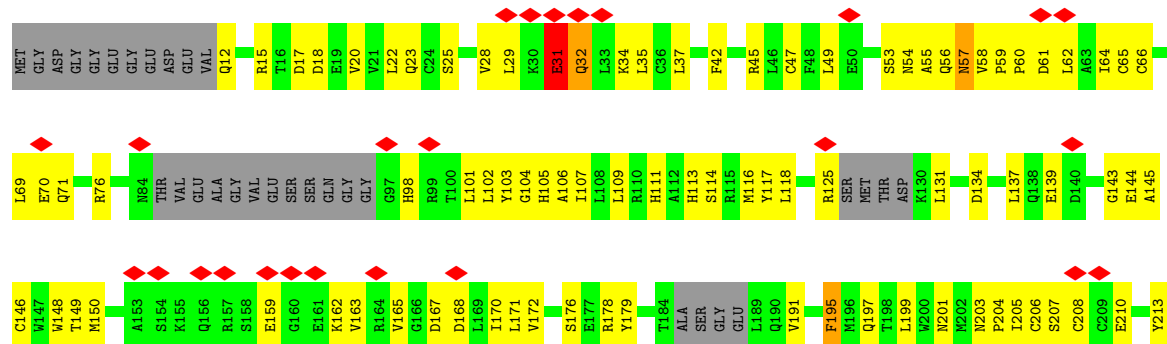






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THR	V3423	GLU	L3559	HIS	E3755	GLY	L3923	L4003	Q4073	V4145	E4227	THR
LEU	L3424	ARG	E3564	LEU	Q3767	GLY	L3926	L4012	A4076	L4146	A4228	ARG
ALA	THR	GLU	E3565	LEU	S3768	MET	Q3927	L4013	F4077	L4147	A4229	ALA
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ALA	GLU	GLU	E3568	ARG	T3772	ASP	K3936	D4021	Q4083	V4154	C4238	ALA
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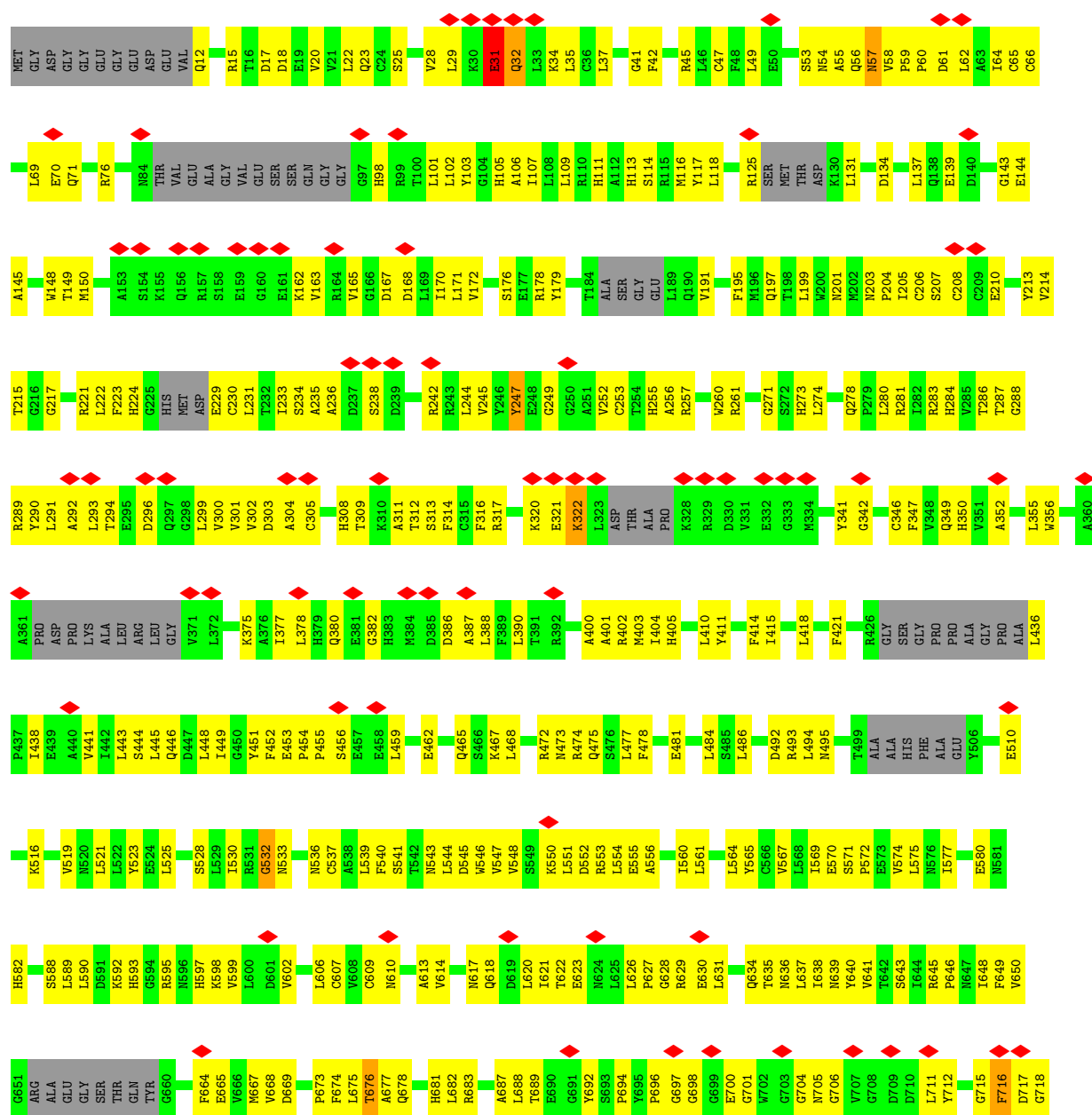








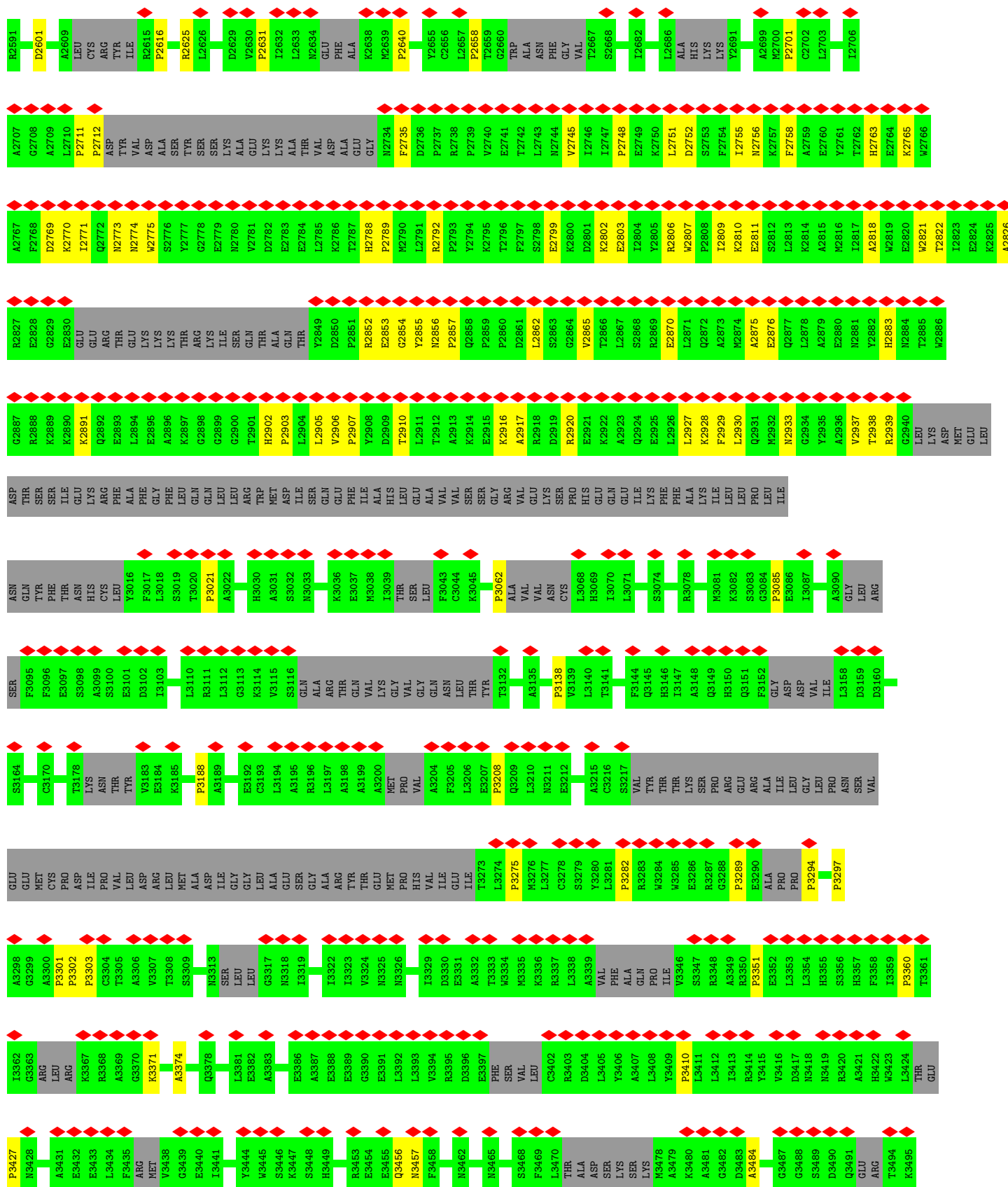
- Molecule 1: Ryanodine receptor 1



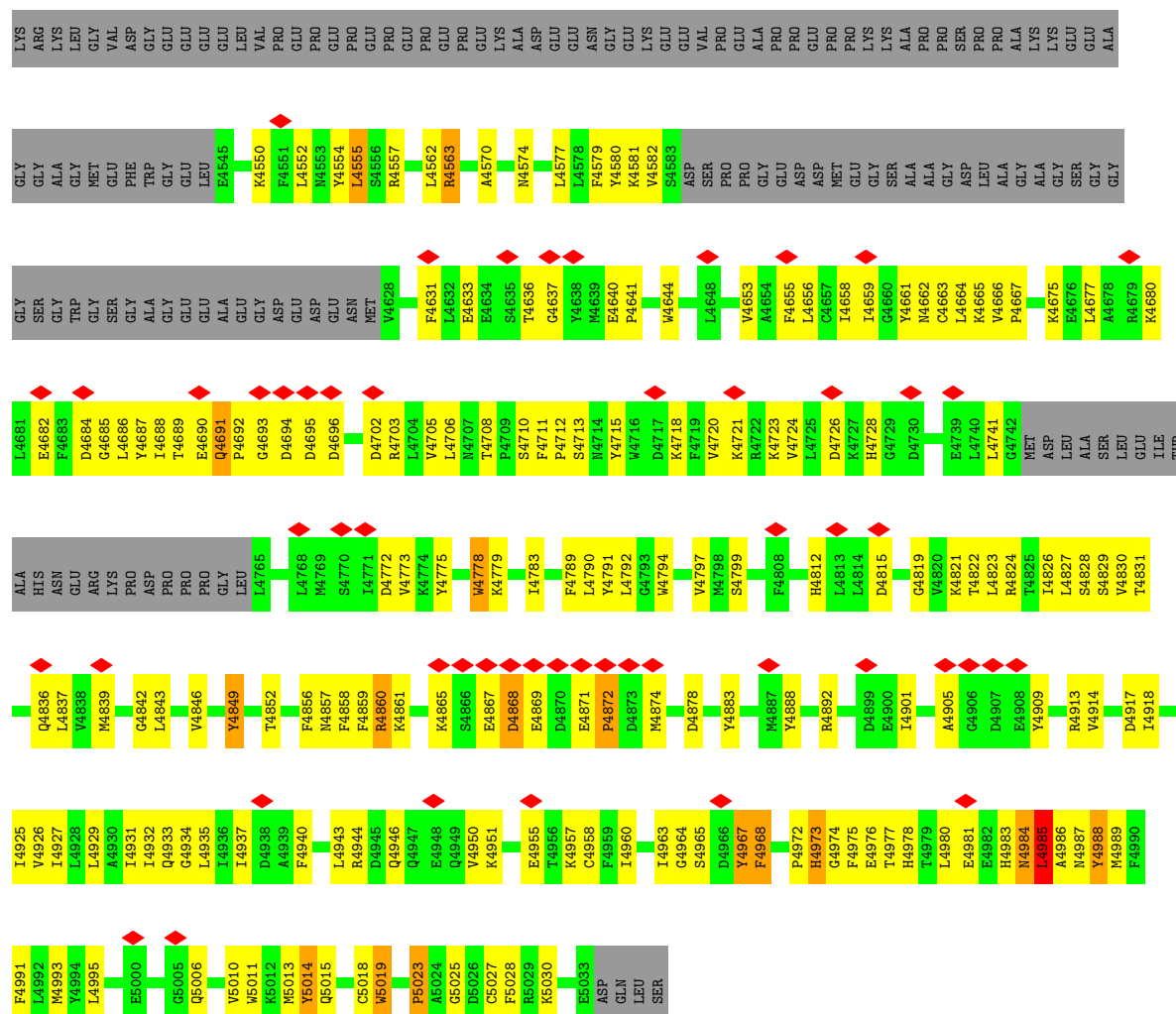




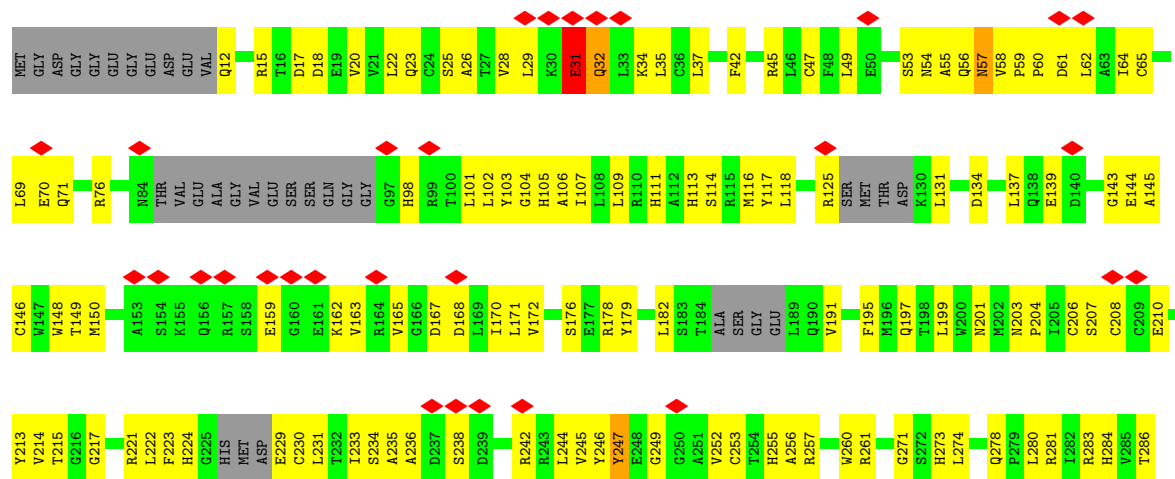






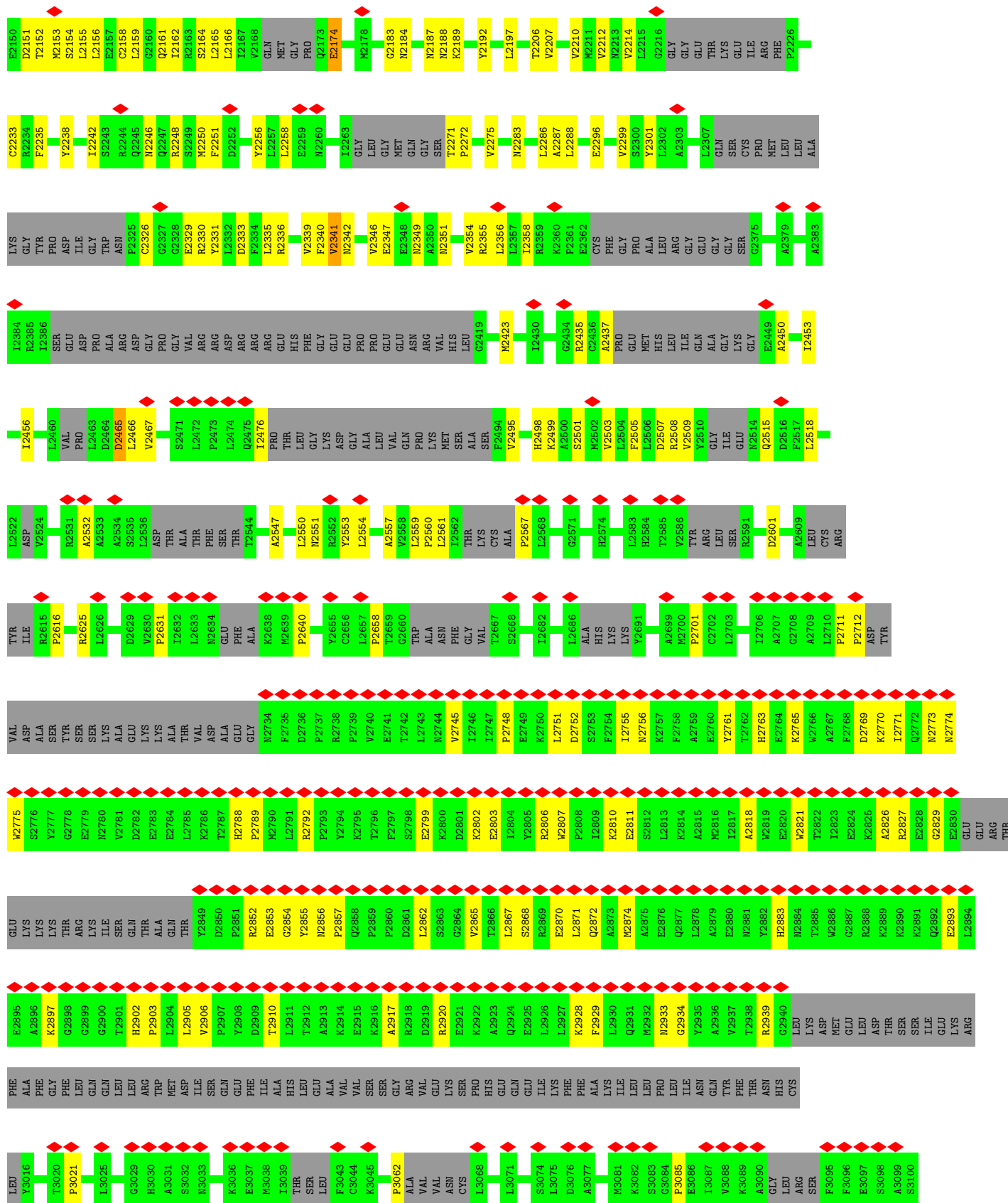


• Molecule 1: Ryanodine receptor 1



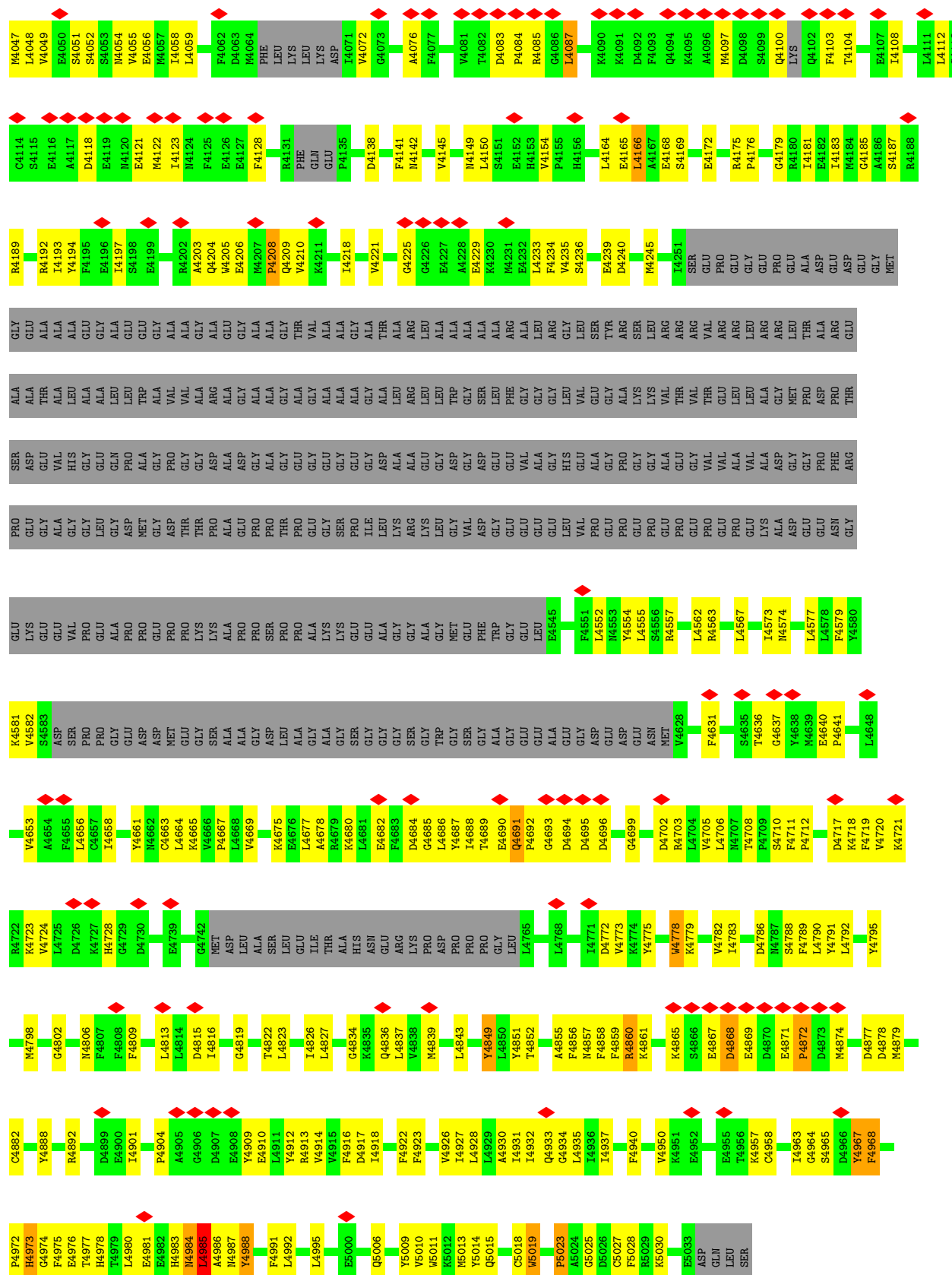
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E1054	P1055	PRO	ASP	GLN	GLU	PRO	SER	GLN	VAL	ASN	GLN	SER	ARG	TRP	R1071	R1072	R1073	I1074	F1075	R1076	A1077	E1078	Y1081	T1082	V1083	G1086	R1087	W1088	Y1089	F1090	E1091	F1092	E1093	T1096	E1099	M1100	R1101	V1102	A1105	E1108	L1109	R1110	P1111	D1112	V1113	E1114	L1115	C1192	G1116	A1117	D1118	E1119					
L977	T978	P979	Q980	Q981	L984	L986	A989	E990	H993	Q1003	GLY	TRP	SER	TYR	SER	VAL	GLN	ASP	ILE	PRO	ALA	R1016	R1020	P1023	Y1024	L1027	A1030	T1031	K1032	R1033	N1035	R1036	D1037	S1038	L1039	C1040	Q1041	A1042	V1043	R1044	G964	T1045	L1046	L1047	G1048	G1050	Y1051	N1052	I1053								
P916	E917	R918	N919	Y920	N921	L922	Q923	M924	S925	G926	L929	K930	T931	L932	R933	A934	L935	G936	C937	H938	V939	G940	H941	A942	D943	E944	K945	A946	GLU	ASP	ASN	LEU	LYS	LYS	LYS	LEU	PRO	LYS	THR	Y959	M960	H961	S962	N963	R964	Y965	K966	P967	A968	P969	L970	D971	L972	S973	H974	V975	R976
C854	P855	V856	D857	T858	V859	Q860	T861	V862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	L874	A875	E876	H879	E880	L881	L882	R883	E887	R888	Q889	R890	R891	T892	Y893	C894	V896	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915			
F716	D717	G718	L719	H720	L721	W722	T723	G724	GLN	TYR	R728	S732	P733	H736	L737	L738	A739	F740	E741	D742	F743	W744	S745	L748	D749	L750	S751	V752	P753	S754	I755	S756	F757	R758	T759	W760	P763	V764	Q765	G766	F767	F768	E769	H772	L773	D774	G775	L776	F777	F778	P779	V780	S781	S782			
F783	S784	K788	V789	R790	W791	L792	L793	G794	GLY	ARG	HIS	E799	F800	K801	F802	P805	P806	V815	L816	R817	R818	E819	R820	L821	R822	L823	E824	P825	I826	K827	E828	R829	R830	R831	E832	R833	P834	R835	H838	L839	V840	G841	P842	S843	D844	C845	LEU	SER	HIS	THR	ASP	R851	V852	P853			
C854	P855	V856	D857	T858	V859	Q860	T861	V862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	L874	A875	E876	H879	E880	L881	L882	R883	E887	R888	Q889	R890	R891	T892	Y893	C894	V896	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915			
L977	T978	P979	Q980	Q981	L984	L986	A989	E990	H993	Q1003	GLY	TRP	SER	TYR	SER	VAL	GLN	ASP	ILE	PRO	ALA	R1016	R1020	P1023	Y1024	L1027	A1030	T1031	K1032	R1033	N1035	R1036	D1037	S1038	L1039	C1040	Q1041	A1042	V1043	R1044	G964	T1045	L1046	L1047	G1048	G1050	Y1051	N1052	I1053								
P916	E917	R918	N919	Y920	N921	L922	Q923	M924	S925	G926	L929	K930	T931	L932	R933	A934	L935	G936	C937	H938	V939	G940	H941	A942	D943	E944	K945	A946	GLU	ASP	ASN	LEU	LYS	LYS	LYS	LEU	PRO	LYS	THR	Y959	M960	H961	S962	N963	R964	Y965	K966	P967	A968	P969	L970	D971	L972	S973	H974	V975	R976
C854	P855	V856	D857	T858	V859	Q860	T861	V862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	L874	A875	E876	H879	E880	L881	L882	R883	E887	R888	Q889	R890	R891	T892	Y893	C894	V896	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915			
E1054	P1055	PRO	ASP	GLN	GLU	PRO	SER	GLN	VAL	ASN	GLN	SER	ARG	TRP	R1071	R1072	R1073	I1074	F1075	R1076	A1077	E1078	Y1081	T1082	V1083	G1086	R1087	W1088	Y1089	F1090	E1091	F1092	E1093	T1096	E1099	M1100	R1101	V1102	A1105	E1108	L1109	R1110	P1111	D1112	V1113	E1114	L1115	C1192	G1116	A1117	D1118	E1119					
L1120	A1121	M1126	G1126	H1127	R1128	R1131	H1132	H1133	L1134	E1137	W1143	Q1144	D1147	V1148	V1149	M1152	I1153	D1154	L1155	T1156	E1157	R1158	T1159	I1160	I1161	F1162	T1163	L1164	V1168	L1169	W1178	F1179	R1180	E1181	G1187	F1188	L1189	P1190	V1191	C1192	S1193	L1194	G1195														
T287	G288	R289	Y290	L291	A292	L293	T294	E295	D296	Q297	G298	L299	V300	V301	V302	D303	A304	C305	H308	T309	K310	A311	T312	S313	F314	C315	F316	R317	K320	E321	K322	L323	ASP	THR	ALA	PRO	K328	R329	D330	V331	E332	G333	M334	Y341	G342	C346	F347	V348	Q349	H350	V351	A352	L355	W356			
A360	A361	PRO	ASP	PRO	LYS	ALA	LEU	ARG	LEU	GLY	V371	L372	K375	A376	I377	L378	H379	Q380	E381	G382	H383	M384	D385	D386	A387	L388	S389	L390	T391	R392	A400	A401	R402	M403	I404	H405	L410	Y411	F414	I415	K416	G417	L418	F421	R426	GLY	SER	GLY	PRO	PRO	ALA	GLY					



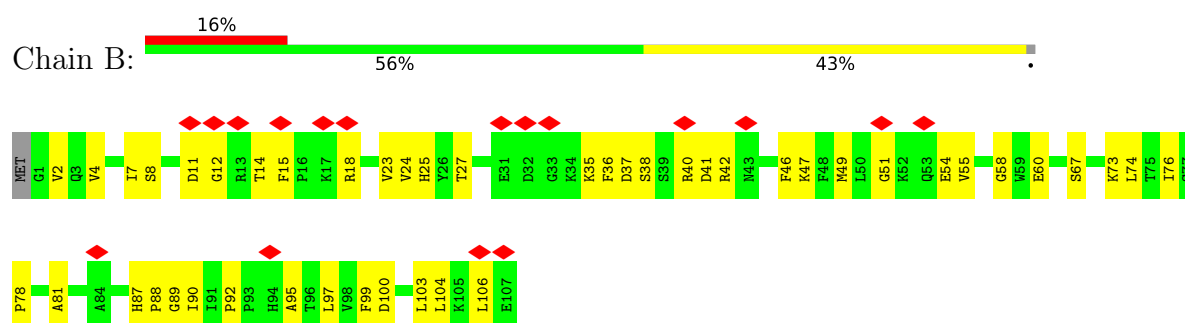




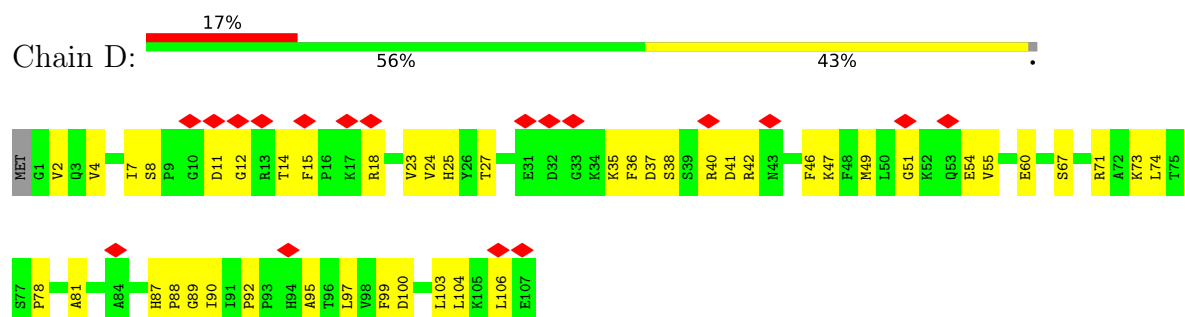




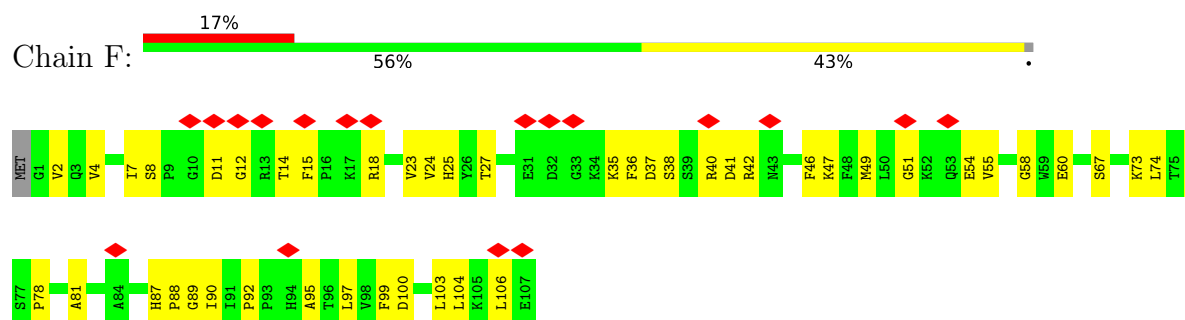
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



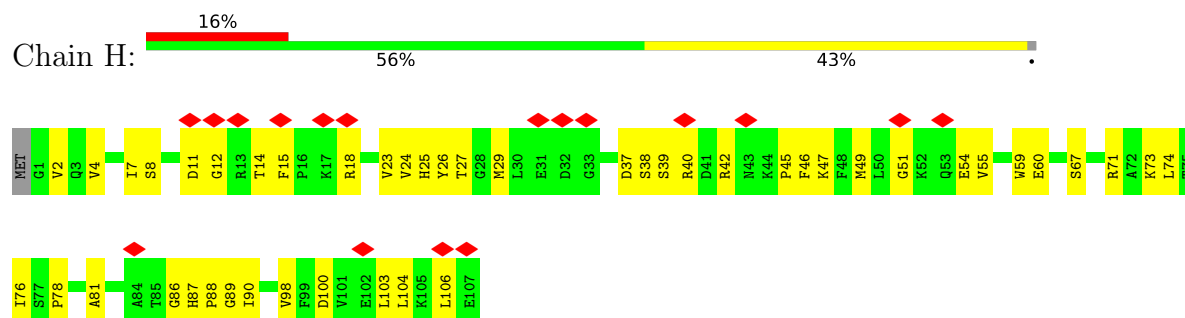
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	119000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.382	Depositor
Minimum map value	-0.148	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.016	Depositor
Recommended contour level	0.085	Depositor
Map size (Å)	482.40002, 482.40002, 482.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.34, 1.34, 1.34	Depositor

## 5 Model quality

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	A	0.85	25/27395 (0.1%)	0.86	68/37119 (0.2%)
1	C	0.85	27/27395 (0.1%)	0.86	64/37119 (0.2%)
1	E	0.85	24/27395 (0.1%)	0.86	63/37119 (0.2%)
1	G	0.84	26/27395 (0.1%)	0.85	59/37119 (0.2%)
2	B	0.64	0/851	0.68	0/1146
2	D	0.64	0/851	0.68	0/1146
2	F	0.64	0/851	0.68	0/1146
2	H	0.66	0/851	0.69	0/1146
All	All	0.84	102/112984 (0.1%)	0.85	254/153060 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	17
1	C	0	17
1	E	0	17
1	G	0	16
All	All	0	67

All (102) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2853	GLU	CD-OE1	17.93	1.45	1.25
1	E	2853	GLU	CD-OE1	17.88	1.45	1.25
1	G	2853	GLU	CD-OE1	17.49	1.44	1.25
1	C	2853	GLU	CD-OE1	17.32	1.44	1.25
1	G	4988	TYR	CG-CD1	-9.48	1.26	1.39
1	C	4968	PHE	CG-CD1	-8.69	1.25	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4968	PHE	CG-CD1	-8.66	1.25	1.38
1	E	4968	PHE	CG-CD1	-8.65	1.25	1.38
1	G	4968	PHE	CG-CD1	-8.63	1.25	1.38
1	C	4988	TYR	CG-CD1	-8.52	1.28	1.39
1	G	2853	GLU	CG-CD	8.48	1.64	1.51
1	E	2853	GLU	CG-CD	8.45	1.64	1.51
1	A	2853	GLU	CG-CD	8.35	1.64	1.51
1	A	4988	TYR	CG-CD1	-8.32	1.28	1.39
1	E	4988	TYR	CG-CD1	-8.28	1.28	1.39
1	C	2853	GLU	CG-CD	8.10	1.64	1.51
1	G	4234	PHE	CG-CD1	-7.47	1.27	1.38
1	G	3922	TYR	CG-CD2	-7.26	1.29	1.39
1	A	3922	TYR	CG-CD2	-7.22	1.29	1.39
1	E	3922	TYR	CG-CD2	-7.20	1.29	1.39
1	G	4988	TYR	CE2-CZ	-7.19	1.29	1.38
1	C	3922	TYR	CG-CD2	-7.19	1.29	1.39
1	A	4988	TYR	CE2-CZ	-6.87	1.29	1.38
1	C	4988	TYR	CE2-CZ	-6.86	1.29	1.38
1	E	4988	TYR	CE2-CZ	-6.85	1.29	1.38
1	G	4967	TYR	CG-CD2	-6.77	1.30	1.39
1	C	4967	TYR	CG-CD2	-6.62	1.30	1.39
1	E	4967	TYR	CG-CD2	-6.61	1.30	1.39
1	A	4967	TYR	CG-CD2	-6.59	1.30	1.39
1	G	478	PHE	CG-CD1	-6.57	1.28	1.38
1	E	478	PHE	CG-CD1	-6.57	1.28	1.38
1	G	4194	TYR	CG-CD1	-6.55	1.30	1.39
1	A	478	PHE	CG-CD1	-6.53	1.28	1.38
1	C	478	PHE	CG-CD1	-6.50	1.28	1.38
1	A	5019	TRP	CE3-CZ3	-6.47	1.27	1.38
1	C	5019	TRP	CE3-CZ3	-6.42	1.27	1.38
1	C	3887	PHE	CG-CD1	6.42	1.48	1.38
1	E	3887	PHE	CG-CD1	6.42	1.48	1.38
1	A	3986	TRP	CB-CG	-6.40	1.38	1.50
1	E	5019	TRP	CE3-CZ3	-6.38	1.27	1.38
1	A	5014	TYR	CG-CD1	-6.37	1.30	1.39
1	A	4234	PHE	CG-CD1	-6.36	1.29	1.38
1	C	4234	PHE	CG-CD1	-6.36	1.29	1.38
1	G	4778	TRP	CE3-CZ3	-6.36	1.27	1.38
1	E	3986	TRP	CB-CG	-6.35	1.38	1.50
1	C	5014	TYR	CG-CD1	-6.33	1.30	1.39
1	E	5014	TYR	CG-CD1	-6.33	1.30	1.39
1	C	3986	TRP	CB-CG	-6.32	1.38	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4234	PHE	CG-CD1	-6.32	1.29	1.38
1	A	3887	PHE	CG-CD1	6.30	1.48	1.38
1	G	5019	TRP	CE3-CZ3	-6.23	1.27	1.38
1	C	4194	TYR	CG-CD1	-6.18	1.31	1.39
1	A	4194	TYR	CG-CD1	-6.15	1.31	1.39
1	A	4778	TRP	CE3-CZ3	-6.11	1.28	1.38
1	E	4778	TRP	CE3-CZ3	-6.11	1.28	1.38
1	E	4194	TYR	CG-CD1	-6.07	1.31	1.39
1	C	4778	TRP	CE3-CZ3	-6.04	1.28	1.38
1	A	314	PHE	CG-CD1	-6.03	1.29	1.38
1	C	4849	TYR	CG-CD1	-6.03	1.31	1.39
1	E	314	PHE	CG-CD1	-6.01	1.29	1.38
1	C	314	PHE	CG-CD1	-5.99	1.29	1.38
1	G	314	PHE	CG-CD1	-5.97	1.29	1.38
1	E	5014	TYR	CE2-CZ	-5.75	1.31	1.38
1	G	3986	TRP	CB-CG	-5.73	1.40	1.50
1	A	5014	TYR	CE2-CZ	-5.72	1.31	1.38
1	G	5014	TYR	CG-CD1	-5.70	1.31	1.39
1	C	5014	TYR	CE2-CZ	-5.70	1.31	1.38
1	C	478	PHE	CG-CD2	-5.65	1.30	1.38
1	G	5014	TYR	CE2-CZ	-5.64	1.31	1.38
1	A	478	PHE	CG-CD2	-5.63	1.30	1.38
1	G	478	PHE	CG-CD2	-5.57	1.30	1.38
1	E	478	PHE	CG-CD2	-5.56	1.30	1.38
1	G	3968	TYR	CD2-CE2	-5.56	1.31	1.39
1	G	5019	TRP	CB-CG	-5.51	1.40	1.50
1	G	247	TYR	CG-CD2	-5.44	1.32	1.39
1	A	4849	TYR	CG-CD1	-5.37	1.32	1.39
1	A	3968	TYR	CD2-CE2	-5.37	1.31	1.39
1	G	4849	TYR	CG-CD1	-5.35	1.32	1.39
1	C	3968	TYR	CD2-CE2	-5.35	1.31	1.39
1	E	247	TYR	CG-CD2	-5.35	1.32	1.39
1	E	3968	TYR	CD2-CE2	-5.34	1.31	1.39
1	A	247	TYR	CG-CD2	-5.31	1.32	1.39
1	C	2853	GLU	CD-OE2	-5.29	1.19	1.25
1	C	247	TYR	CG-CD2	-5.26	1.32	1.39
1	A	3725	TYR	CG-CD2	-5.25	1.32	1.39
1	C	3725	TYR	CG-CD2	-5.22	1.32	1.39
1	C	4940	PHE	CG-CD1	-5.22	1.30	1.38
1	E	117	TYR	CE1-CZ	-5.21	1.31	1.38
1	E	3725	TYR	CG-CD2	-5.20	1.32	1.39
1	G	3935	TRP	CG-CD1	-5.20	1.29	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	3968	TYR	CG-CD1	-5.19	1.32	1.39
1	C	5023	PRO	CA-C	-5.17	1.42	1.52
1	G	117	TYR	CE1-CZ	-5.17	1.31	1.38
1	C	117	TYR	CE1-CZ	-5.14	1.31	1.38
1	A	117	TYR	CE1-CZ	-5.12	1.31	1.38
1	E	5023	PRO	CA-C	-5.10	1.42	1.52
1	C	5019	TRP	CB-CG	-5.08	1.41	1.50
1	G	5023	PRO	CA-C	-5.04	1.42	1.52
1	A	5023	PRO	CA-C	-5.04	1.42	1.52
1	E	4849	TYR	CG-CD1	-5.01	1.32	1.39
1	G	246	TYR	CG-CD2	5.01	1.45	1.39
1	A	5019	TRP	CB-CG	-5.01	1.41	1.50

All (254) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4032	GLU	OE1-CD-OE2	-7.83	113.91	123.30
1	G	4985	LEU	CB-CG-CD1	-7.61	98.06	111.00
1	G	2118	ARG	NE-CZ-NH2	-7.55	116.53	120.30
1	A	3773	ARG	NE-CZ-NH2	-7.54	116.53	120.30
1	G	4563	ARG	NE-CZ-NH2	7.46	124.03	120.30
1	A	1290	ARG	NE-CZ-NH2	-7.38	116.61	120.30
1	E	3773	ARG	NE-CZ-NH2	-7.37	116.61	120.30
1	C	3773	ARG	NE-CZ-NH2	-7.33	116.63	120.30
1	E	4032	GLU	OE1-CD-OE2	-7.30	114.53	123.30
1	A	4943	LEU	CB-CG-CD1	7.26	123.35	111.00
1	C	3360	PRO	N-CA-CB	7.25	111.99	103.30
1	A	4032	GLU	OE1-CD-OE2	-7.24	114.61	123.30
1	E	3360	PRO	N-CA-CB	7.23	111.97	103.30
1	E	1290	ARG	NE-CZ-NH2	-7.22	116.69	120.30
1	A	3360	PRO	N-CA-CB	7.21	111.95	103.30
1	E	4943	LEU	CB-CG-CD1	7.21	123.26	111.00
1	C	4032	GLU	OE1-CD-OE2	-7.16	114.70	123.30
1	C	1290	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	C	2118	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	A	2118	ARG	NE-CZ-NH2	-7.10	116.75	120.30
1	G	1290	ARG	NE-CZ-NH2	-7.06	116.77	120.30
1	A	3887	PHE	CB-CG-CD2	-7.05	115.86	120.80
1	C	3887	PHE	CB-CG-CD2	-7.04	115.87	120.80
1	E	3887	PHE	CB-CG-CD2	-7.01	115.90	120.80
1	E	2118	ARG	NE-CZ-NH2	-7.00	116.80	120.30
1	C	4943	LEU	CB-CG-CD1	6.90	122.72	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4563	ARG	NE-CZ-NH2	6.83	123.72	120.30
1	G	3275	PRO	N-CA-CB	6.81	111.47	103.30
1	C	3275	PRO	N-CA-CB	6.80	111.46	103.30
1	G	3360	PRO	N-CA-CB	6.77	111.43	103.30
1	E	3275	PRO	N-CA-CB	6.73	111.38	103.30
1	A	3275	PRO	N-CA-CB	6.73	111.37	103.30
1	E	4563	ARG	NE-CZ-NH2	6.69	123.65	120.30
1	G	3887	PHE	CB-CG-CD2	-6.69	116.11	120.80
1	C	3289	PRO	N-CA-CB	6.67	111.30	103.30
1	G	4563	ARG	NE-CZ-NH1	-6.65	116.97	120.30
1	E	3289	PRO	N-CA-CB	6.62	111.25	103.30
1	A	3289	PRO	N-CA-CB	6.61	111.23	103.30
1	C	3303	PRO	N-CA-CB	6.60	111.22	103.30
1	A	3062	PRO	N-CA-CB	6.59	111.21	103.30
1	E	3303	PRO	N-CA-CB	6.58	111.20	103.30
1	E	3062	PRO	N-CA-CB	6.58	111.19	103.30
1	G	3289	PRO	N-CA-CB	6.57	111.18	103.30
1	C	3062	PRO	N-CA-CB	6.55	111.16	103.30
1	G	4790	LEU	CA-CB-CG	6.54	130.35	115.30
1	A	3303	PRO	N-CA-CB	6.53	111.14	103.30
1	G	552	ASP	CB-CG-OD1	-6.53	112.43	118.30
1	A	2640	PRO	N-CA-CB	6.52	111.13	103.30
1	C	552	ASP	CB-CG-OD1	-6.52	112.44	118.30
1	E	2640	PRO	N-CA-CB	6.51	111.11	103.30
1	A	552	ASP	CB-CG-OD1	-6.49	112.46	118.30
1	C	2640	PRO	N-CA-CB	6.48	111.08	103.30
1	G	2640	PRO	N-CA-CB	6.47	111.07	103.30
1	E	3351	PRO	N-CA-CB	6.43	111.02	103.30
1	G	3062	PRO	N-CA-CB	6.43	111.01	103.30
1	G	3965	LEU	CB-CG-CD2	-6.43	100.08	111.00
1	G	2701	PRO	N-CA-CB	6.42	111.00	103.30
1	C	3351	PRO	N-CA-CB	6.42	111.00	103.30
1	C	3410	PRO	N-CA-CB	6.41	111.00	103.30
1	A	2701	PRO	N-CA-CB	6.41	110.99	103.30
1	A	3351	PRO	N-CA-CB	6.40	110.98	103.30
1	E	3410	PRO	N-CA-CB	6.40	110.98	103.30
1	E	3567	PRO	N-CA-CB	6.40	110.98	103.30
1	A	3410	PRO	N-CA-CB	6.39	110.97	103.30
1	C	2701	PRO	N-CA-CB	6.39	110.97	103.30
1	C	3138	PRO	N-CA-CB	6.39	110.97	103.30
1	E	3138	PRO	N-CA-CB	6.39	110.96	103.30
1	G	3021	PRO	N-CA-CB	6.37	110.94	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	2701	PRO	N-CA-CB	6.36	110.93	103.30
1	A	3138	PRO	N-CA-CB	6.36	110.93	103.30
1	A	3297	PRO	N-CA-CB	6.34	110.91	103.30
1	A	3567	PRO	N-CA-CB	6.34	110.91	103.30
1	C	3297	PRO	N-CA-CB	6.33	110.90	103.30
1	E	3188	PRO	N-CA-CB	6.32	110.89	103.30
1	C	3188	PRO	N-CA-CB	6.31	110.87	103.30
1	E	3297	PRO	N-CA-CB	6.31	110.87	103.30
1	C	3567	PRO	N-CA-CB	6.30	110.86	103.30
1	G	3297	PRO	N-CA-CB	6.29	110.85	103.30
1	E	1290	ARG	NE-CZ-NH1	6.27	123.43	120.30
1	G	3282	PRO	N-CA-CB	6.27	110.82	103.30
1	G	3303	PRO	N-CA-CB	6.25	110.80	103.30
1	A	3188	PRO	N-CA-CB	6.25	110.80	103.30
1	C	1290	ARG	NE-CZ-NH1	6.25	123.42	120.30
1	A	4563	ARG	NE-CZ-NH2	6.25	123.42	120.30
1	A	1290	ARG	NE-CZ-NH1	6.24	123.42	120.30
1	E	4985	LEU	CB-CG-CD1	-6.24	100.40	111.00
1	C	2711	PRO	N-CA-CB	6.23	110.77	103.30
1	A	2711	PRO	N-CA-CB	6.21	110.75	103.30
1	G	3302	PRO	N-CA-CB	6.20	110.74	103.30
1	E	4790	LEU	CA-CB-CG	6.19	129.54	115.30
1	A	858	THR	N-CA-CB	6.19	122.06	110.30
1	E	858	THR	N-CA-CB	6.18	122.04	110.30
1	C	858	THR	N-CA-CB	6.17	122.02	110.30
1	G	3527	PRO	N-CA-CB	6.17	110.70	103.30
1	A	4790	LEU	CA-CB-CG	6.17	129.49	115.30
1	C	4985	LEU	CB-CG-CD1	-6.17	100.52	111.00
1	E	2711	PRO	N-CA-CB	6.16	110.69	103.30
1	G	1290	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	C	4790	LEU	CA-CB-CG	6.15	129.45	115.30
1	E	3302	PRO	N-CA-CB	6.15	110.68	103.30
1	G	858	THR	N-CA-CB	6.15	121.99	110.30
1	G	3519	PRO	N-CA-CB	6.15	110.68	103.30
1	C	3282	PRO	N-CA-CB	6.15	110.68	103.30
1	A	3696	ASP	CB-CG-OD2	-6.15	112.77	118.30
1	A	4985	LEU	CB-CG-CD1	-6.14	100.56	111.00
1	A	3302	PRO	N-CA-CB	6.12	110.65	103.30
1	C	3294	PRO	N-CA-CB	6.12	110.64	103.30
1	E	552	ASP	CB-CG-OD1	-6.11	112.80	118.30
1	E	3282	PRO	N-CA-CB	6.11	110.63	103.30
1	A	3282	PRO	N-CA-CB	6.11	110.63	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	3519	PRO	N-CA-CB	6.11	110.63	103.30
1	C	3519	PRO	N-CA-CB	6.11	110.63	103.30
1	E	3294	PRO	N-CA-CB	6.11	110.63	103.30
1	C	3302	PRO	N-CA-CB	6.11	110.63	103.30
1	G	3138	PRO	N-CA-CB	6.10	110.62	103.30
1	G	3351	PRO	N-CA-CB	6.09	110.61	103.30
1	A	3294	PRO	N-CA-CB	6.09	110.61	103.30
1	E	3519	PRO	N-CA-CB	6.08	110.59	103.30
1	E	4995	LEU	CB-CG-CD1	-6.08	100.67	111.00
1	G	3188	PRO	N-CA-CB	6.07	110.58	103.30
1	C	3021	PRO	N-CA-CB	6.06	110.57	103.30
1	E	4555	LEU	CB-CG-CD2	-6.06	100.70	111.00
1	G	3410	PRO	N-CA-CB	6.06	110.57	103.30
1	E	3208	PRO	N-CA-CB	6.05	110.57	103.30
1	C	3208	PRO	N-CA-CB	6.05	110.56	103.30
1	A	3208	PRO	N-CA-CB	6.05	110.56	103.30
1	E	3527	PRO	N-CA-CB	6.04	110.55	103.30
1	G	3294	PRO	N-CA-CB	6.04	110.55	103.30
1	E	3021	PRO	N-CA-CB	6.04	110.55	103.30
1	G	3696	ASP	CB-CG-OD2	-6.04	112.87	118.30
1	G	4995	LEU	CB-CG-CD1	-6.03	100.75	111.00
1	C	280	LEU	CB-CG-CD1	-6.03	100.76	111.00
1	A	3527	PRO	N-CA-CB	6.02	110.52	103.30
1	G	2711	PRO	N-CA-CB	6.02	110.52	103.30
1	A	4555	LEU	CB-CG-CD2	-6.01	100.78	111.00
1	A	3021	PRO	N-CA-CB	6.00	110.50	103.30
1	A	280	LEU	CB-CG-CD1	-6.00	100.81	111.00
1	E	280	LEU	CB-CG-CD1	-5.99	100.81	111.00
1	C	3527	PRO	N-CA-CB	5.97	110.47	103.30
1	C	4995	LEU	CB-CG-CD1	-5.94	100.90	111.00
1	E	3696	ASP	CB-CG-OD2	-5.94	112.96	118.30
1	G	3567	PRO	N-CA-CB	5.93	110.42	103.30
1	G	280	LEU	CB-CG-CD1	-5.93	100.92	111.00
1	C	4555	LEU	CB-CG-CD2	-5.92	100.93	111.00
1	G	4985	LEU	CA-CB-CG	5.91	128.90	115.30
1	G	3085	PRO	N-CA-CB	5.88	110.35	103.30
1	A	4995	LEU	CB-CG-CD1	-5.87	101.03	111.00
1	G	3301	PRO	N-CA-CB	5.87	110.34	103.30
1	C	3301	PRO	N-CA-CB	5.84	110.31	103.30
1	A	3085	PRO	N-CA-CB	5.83	110.30	103.30
1	E	3301	PRO	N-CA-CB	5.83	110.29	103.30
1	C	3696	ASP	CB-CG-OD2	-5.82	113.06	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	3085	PRO	N-CA-CB	5.82	110.28	103.30
1	A	3301	PRO	N-CA-CB	5.80	110.27	103.30
1	C	3085	PRO	N-CA-CB	5.79	110.24	103.30
1	A	3769	ARG	NE-CZ-NH2	-5.74	117.43	120.30
1	C	2567	PRO	N-CA-CB	5.72	110.16	103.30
1	A	3925	ARG	NE-CZ-NH2	-5.71	117.45	120.30
1	E	3769	ARG	NE-CZ-NH2	-5.70	117.45	120.30
1	A	2567	PRO	N-CA-CB	5.68	110.12	103.30
1	E	2616	PRO	N-CA-CB	5.68	110.12	103.30
1	E	2567	PRO	N-CA-CB	5.67	110.11	103.30
1	G	2616	PRO	N-CA-CB	5.64	110.07	103.30
1	G	3208	PRO	N-CA-CB	5.64	110.07	103.30
1	G	2567	PRO	N-CA-CB	5.63	110.05	103.30
1	C	2616	PRO	N-CA-CB	5.62	110.04	103.30
1	C	2631	PRO	N-CA-CB	5.61	110.03	103.30
1	A	2616	PRO	N-CA-CB	5.61	110.03	103.30
1	C	3925	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	E	4860	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	G	4860	ARG	NE-CZ-NH2	-5.58	117.51	120.30
1	A	2631	PRO	N-CA-CB	5.56	109.97	103.30
1	E	2631	PRO	N-CA-CB	5.55	109.96	103.30
1	G	2631	PRO	N-CA-CB	5.54	109.95	103.30
1	E	32	GLN	N-CA-CB	5.53	120.55	110.60
1	C	3769	ARG	NE-CZ-NH2	-5.52	117.54	120.30
1	A	32	GLN	N-CA-CB	5.51	120.52	110.60
1	C	3849	ARG	NE-CZ-NH1	5.49	123.04	120.30
1	C	32	GLN	N-CA-CB	5.48	120.47	110.60
1	E	2174	GLU	OE1-CD-OE2	-5.47	116.73	123.30
1	E	3925	ARG	NE-CZ-NH2	-5.47	117.57	120.30
1	G	32	GLN	N-CA-CB	5.47	120.44	110.60
1	G	3427	PRO	N-CA-CB	5.47	109.86	103.30
1	C	2658	PRO	N-CA-CB	5.43	109.82	103.30
1	G	4183	ILE	CG1-CB-CG2	-5.43	99.46	111.40
1	C	2712	PRO	N-CA-CB	5.42	109.81	103.30
1	G	2250	MET	CG-SD-CE	-5.42	91.53	100.20
1	E	2712	PRO	N-CA-CB	5.42	109.80	103.30
1	C	2174	GLU	OE1-CD-OE2	-5.41	116.81	123.30
1	A	4943	LEU	CB-CG-CD2	-5.41	101.80	111.00
1	G	2658	PRO	N-CA-CB	5.41	109.79	103.30
1	G	2712	PRO	N-CA-CB	5.41	109.79	103.30
1	G	2174	GLU	OE1-CD-OE2	-5.40	116.82	123.30
1	C	4860	ARG	NE-CZ-NH2	-5.40	117.60	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2712	PRO	N-CA-CB	5.39	109.77	103.30
1	A	2174	GLU	OE1-CD-OE2	-5.37	116.85	123.30
1	A	2658	PRO	N-CA-CB	5.37	109.74	103.30
1	A	3849	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	E	2658	PRO	N-CA-CB	5.36	109.73	103.30
1	E	3849	ARG	NE-CZ-NH1	5.35	122.98	120.30
1	A	2250	MET	CG-SD-CE	-5.35	91.65	100.20
1	A	4860	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	C	2250	MET	CG-SD-CE	-5.34	91.65	100.20
1	C	2359	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	G	4166	LEU	CA-CB-CG	5.33	127.56	115.30
1	E	131	LEU	CA-CB-CG	5.31	127.52	115.30
1	E	2250	MET	CG-SD-CE	-5.31	91.71	100.20
1	G	3835	LEU	CB-CG-CD1	-5.31	101.98	111.00
1	A	131	LEU	CA-CB-CG	5.30	127.50	115.30
1	A	280	LEU	CB-CG-CD2	5.29	120.00	111.00
1	E	280	LEU	CB-CG-CD2	5.29	120.00	111.00
1	C	280	LEU	CB-CG-CD2	5.27	119.96	111.00
1	C	131	LEU	CA-CB-CG	5.25	127.39	115.30
1	G	131	LEU	CA-CB-CG	5.25	127.39	115.30
1	E	4943	LEU	CB-CG-CD2	-5.21	102.14	111.00
1	A	3887	PHE	CG-CD2-CE2	-5.20	115.08	120.80
1	C	4563	ARG	NE-CZ-NH1	-5.20	117.70	120.30
1	E	1226	PHE	N-CA-CB	-5.19	101.26	110.60
1	G	1226	PHE	N-CA-CB	-5.19	101.26	110.60
1	E	2258	LEU	CB-CG-CD1	5.18	119.81	111.00
1	C	4180	ARG	NE-CZ-NH2	-5.18	117.71	120.30
1	C	1226	PHE	N-CA-CB	-5.17	101.30	110.60
1	G	3984	ARG	NE-CZ-NH1	-5.17	117.72	120.30
1	E	4180	ARG	NE-CZ-NH2	-5.17	117.72	120.30
1	C	3887	PHE	CG-CD2-CE2	-5.15	115.13	120.80
1	E	3887	PHE	CG-CD2-CE2	-5.15	115.13	120.80
1	A	1226	PHE	N-CA-CB	-5.14	101.35	110.60
1	A	3427	PRO	N-CA-CB	5.14	109.47	103.30
1	A	3811	GLU	CA-CB-CG	5.14	124.71	113.40
1	A	3965	LEU	CB-CG-CD2	-5.14	102.27	111.00
1	E	4563	ARG	NE-CZ-NH1	-5.13	117.73	120.30
1	G	280	LEU	CB-CG-CD2	5.13	119.72	111.00
1	A	4180	ARG	NE-CZ-NH2	-5.13	117.73	120.30
1	C	3427	PRO	N-CA-CB	5.12	109.44	103.30
1	E	3427	PRO	N-CA-CB	5.11	109.43	103.30
1	C	4928	LEU	CB-CG-CD1	-5.11	102.31	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	2258	LEU	CB-CG-CD1	5.11	119.68	111.00
1	E	3965	LEU	CB-CG-CD2	-5.09	102.34	111.00
1	A	2258	LEU	CB-CG-CD1	5.09	119.66	111.00
1	A	4928	LEU	CB-CG-CD1	-5.09	102.34	111.00
1	G	1251	GLU	N-CA-C	5.08	124.73	111.00
1	A	4858	PHE	CB-CG-CD1	5.07	124.35	120.80
1	C	2258	LEU	CB-CG-CD1	5.06	119.61	111.00
1	E	4048	LEU	CB-CG-CD2	5.06	119.60	111.00
1	A	3884	LEU	CB-CG-CD1	5.06	119.60	111.00
1	A	1251	GLU	N-CA-C	5.06	124.65	111.00
1	A	4048	LEU	CB-CG-CD2	5.04	119.58	111.00
1	C	4943	LEU	CB-CG-CD2	-5.04	102.43	111.00
1	E	1251	GLU	N-CA-C	5.03	124.59	111.00
1	C	1251	GLU	N-CA-C	5.02	124.55	111.00
1	A	4563	ARG	NE-CZ-NH1	-5.01	117.79	120.30
1	C	195	PHE	CB-CG-CD2	-5.01	117.29	120.80
1	G	3923	LEU	CB-CG-CD1	-5.01	102.48	111.00
1	A	3780	LEU	CB-CG-CD2	-5.00	102.49	111.00

There are no chirality outliers.

All (67) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1187	GLY	Mainchain,Peptide
1	A	1250	PRO	Mainchain,Peptide
1	A	1253	PRO	Peptide
1	A	1588	ALA	Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	31	GLU	Mainchain,Peptide
1	A	322	LYS	Peptide
1	A	3694	LYS	Peptide
1	A	841	GLY	Mainchain,Peptide
1	A	857	ASP	Mainchain,Peptide
1	C	1187	GLY	Mainchain,Peptide
1	C	1250	PRO	Mainchain,Peptide
1	C	1253	PRO	Peptide
1	C	1588	ALA	Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	31	GLU	Mainchain,Peptide
1	C	322	LYS	Peptide

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Mol	Chain	Res	Type	Group
1	C	3694	LYS	Peptide
1	C	841	GLY	Mainchain,Peptide
1	C	857	ASP	Mainchain,Peptide
1	E	1187	GLY	Mainchain,Peptide
1	E	1250	PRO	Mainchain,Peptide
1	E	1253	PRO	Peptide
1	E	1588	ALA	Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	31	GLU	Mainchain,Peptide
1	E	322	LYS	Peptide
1	E	3694	LYS	Peptide
1	E	841	GLY	Mainchain,Peptide
1	E	857	ASP	Mainchain,Peptide
1	G	1187	GLY	Mainchain,Peptide
1	G	1250	PRO	Mainchain,Peptide
1	G	1253	PRO	Peptide
1	G	1588	ALA	Peptide
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	31	GLU	Mainchain,Peptide
1	G	322	LYS	Peptide
1	G	841	GLY	Mainchain,Peptide
1	G	857	ASP	Mainchain,Peptide

## 5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26926	0	24467	1003	0
1	C	26926	0	24467	1022	0
1	E	26926	0	24467	1004	0
1	G	26926	0	24467	952	0
2	B	832	0	831	41	0
2	D	832	0	831	41	0
2	F	832	0	831	41	0
2	H	832	0	831	40	0
3	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111036	0	101192	3945	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 19.

All (3945) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1808:ARG:NH1	1:G:1858:ASP:OD2	1.79	1.16
1:E:1808:ARG:NH1	1:E:1858:ASP:OD2	1.79	1.16
1:C:1808:ARG:NH1	1:C:1858:ASP:OD2	1.79	1.15
1:A:1808:ARG:NH1	1:A:1858:ASP:OD2	1.79	1.14
1:A:1243:PRO:HD2	1:A:1458:HIS:HB3	1.20	1.10
1:G:1243:PRO:HD2	1:G:1458:HIS:CB	1.83	1.06
1:G:1243:PRO:CD	1:G:1458:HIS:HB3	1.85	1.05
1:C:1243:PRO:HD2	1:C:1458:HIS:HB3	1.10	1.04
1:A:683:ARG:NH1	1:A:705:ASN:O	1.97	0.97
1:C:1243:PRO:HD2	1:C:1458:HIS:CB	1.94	0.97
1:E:683:ARG:NH1	1:E:705:ASN:O	1.98	0.97
1:C:683:ARG:NH1	1:C:705:ASN:O	1.98	0.96
1:G:683:ARG:NH1	1:G:705:ASN:O	1.98	0.96
1:G:1243:PRO:HD2	1:G:1458:HIS:HB3	0.98	0.95
1:C:1243:PRO:CD	1:C:1458:HIS:HB3	1.96	0.95
1:E:1699:GLU:OE2	1:E:1810:LYS:NZ	2.01	0.94
1:C:1699:GLU:OE2	1:C:1810:LYS:NZ	2.01	0.93
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.50	0.93
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.51	0.92
1:G:1699:GLU:OE2	1:G:1810:LYS:NZ	2.01	0.92
1:A:1699:GLU:OE2	1:A:1810:LYS:NZ	2.01	0.92
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.52	0.90
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.51	0.89
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.56	0.88
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.56	0.88
1:E:4836:GLN:HB3	1:G:4826:ILE:HD11	1.56	0.87
1:A:1243:PRO:HD2	1:A:1458:HIS:CB	2.04	0.87
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.56	0.86
1:E:737:LEU:HD11	2:F:7:ILE:HG22	1.58	0.85
1:C:737:LEU:HD11	2:D:7:ILE:HG22	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:674:PHE:HB3	2:H:40:ARG:NH1	1.92	0.85
1:A:737:LEU:HD11	2:B:7:ILE:HG22	1.58	0.85
1:E:1243:PRO:HD2	1:E:1458:HIS:HB3	1.59	0.85
1:A:830:ARG:NH1	1:A:1616:GLU:OE2	2.10	0.85
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.58	0.85
1:A:4937:ILE:HD11	1:G:4934:GLY:CA	2.07	0.84
1:G:737:LEU:HD11	2:H:7:ILE:HG22	1.60	0.84
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.58	0.84
1:E:4839:MET:HG3	1:G:4822:THR:HG21	1.60	0.84
1:E:25:SER:OG	1:E:34:LYS:NZ	2.11	0.83
1:C:25:SER:OG	1:C:34:LYS:NZ	2.11	0.83
1:A:1243:PRO:CD	1:A:1458:HIS:HB3	2.05	0.83
1:E:830:ARG:NH1	1:E:1616:GLU:OE2	2.09	0.83
1:C:830:ARG:NH1	1:C:1616:GLU:OE2	2.10	0.83
1:G:830:ARG:NH1	1:G:1616:GLU:OE2	2.10	0.83
1:A:1024:TYR:O	1:A:1032:LYS:NZ	2.12	0.83
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.58	0.83
1:G:25:SER:OG	1:G:34:LYS:NZ	2.11	0.83
1:A:2358:ILE:HG23	1:G:195:PHE:CE1	2.14	0.82
1:A:25:SER:OG	1:A:34:LYS:NZ	2.11	0.82
1:C:1092:PHE:HB3	1:C:1149:VAL:HB	1.60	0.82
1:E:195:PHE:CE1	1:G:2358:ILE:HG23	2.14	0.82
1:G:1024:TYR:O	1:G:1032:LYS:NZ	2.12	0.82
1:G:1092:PHE:HB3	1:G:1149:VAL:HB	1.60	0.82
1:E:1024:TYR:O	1:E:1032:LYS:NZ	2.12	0.82
1:C:1024:TYR:O	1:C:1032:LYS:NZ	2.12	0.82
1:E:1092:PHE:HB3	1:E:1149:VAL:HB	1.60	0.82
1:C:195:PHE:CE1	1:E:2358:ILE:HG23	2.14	0.81
1:A:195:PHE:CE1	1:C:2358:ILE:HG23	2.14	0.81
1:C:674:PHE:HB3	2:D:40:ARG:NH1	1.94	0.81
1:E:76:ARG:NH1	1:G:3936:TYR:HA	1.96	0.81
1:E:674:PHE:HB3	2:F:40:ARG:NH1	1.94	0.81
1:A:674:PHE:HB3	2:B:40:ARG:NH1	1.95	0.81
1:A:1092:PHE:HB3	1:A:1149:VAL:HB	1.60	0.81
1:C:4056:GLU:HG3	1:C:4166:LEU:HD21	1.63	0.81
1:A:4056:GLU:HG3	1:A:4166:LEU:HD21	1.63	0.80
1:A:2358:ILE:HG23	1:G:195:PHE:CD1	2.17	0.80
1:G:4861:LYS:HZ1	1:G:4909:TYR:HD2	1.27	0.80
1:A:4934:GLY:HA3	1:C:4937:ILE:CD1	2.12	0.80
1:G:1780:PRO:HG2	2:H:42:ARG:HE	1.47	0.80
1:E:4056:GLU:HG3	1:E:4166:LEU:HD21	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:ARG:NH1	1:C:3936:TYR:HA	1.97	0.80
2:B:14:THR:HG22	2:B:106:LEU:HD12	1.64	0.80
1:C:195:PHE:CD1	1:E:2358:ILE:HG23	2.17	0.80
1:A:3936:TYR:HA	1:G:76:ARG:NH1	1.97	0.80
1:A:195:PHE:CD1	1:C:2358:ILE:HG23	2.16	0.80
1:A:1780:PRO:HG2	2:B:42:ARG:HE	1.47	0.79
1:C:706:GLY:H	1:C:711:LEU:HD13	1.47	0.79
2:F:14:THR:HG22	2:F:106:LEU:HD12	1.64	0.79
1:G:103:TYR:OH	1:G:167:ASP:OD2	2.00	0.79
1:C:76:ARG:NH1	1:E:3936:TYR:HA	1.98	0.79
1:E:4843:LEU:HD11	1:G:4827:LEU:HD11	1.65	0.79
1:G:2893:GLU:OE2	1:G:2897:LYS:NZ	2.15	0.79
1:A:706:GLY:H	1:A:711:LEU:HD13	1.47	0.79
1:E:103:TYR:OH	1:E:167:ASP:OD2	2.01	0.79
1:A:103:TYR:OH	1:A:167:ASP:OD2	2.00	0.78
1:E:195:PHE:CD1	1:G:2358:ILE:HG23	2.17	0.78
2:D:14:THR:HG22	2:D:106:LEU:HD12	1.64	0.78
1:E:2128:TYR:OH	1:E:3676:ASP:OD2	2.00	0.78
1:C:1780:PRO:HG2	2:D:42:ARG:HE	1.47	0.78
1:E:706:GLY:H	1:E:711:LEU:HD13	1.48	0.78
1:E:3903:LEU:HD22	1:E:3915:ILE:HD12	1.66	0.78
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.63	0.78
1:C:103:TYR:OH	1:C:167:ASP:OD2	2.00	0.77
1:G:1781:CYS:HG	2:H:46:PHE:HE1	1.30	0.77
1:A:3903:LEU:HD22	1:A:3915:ILE:HD12	1.66	0.77
1:G:706:GLY:H	1:G:711:LEU:HD13	1.48	0.77
1:G:4027:LEU:HD22	1:G:4044:MET:HE1	1.66	0.77
1:C:1245:PHE:HB2	1:C:1602:PRO:HB2	1.67	0.77
1:G:465:GLN:HE21	1:G:3711:THR:HA	1.50	0.77
1:G:3903:LEU:HD22	1:G:3915:ILE:HD12	1.67	0.77
1:A:1245:PHE:HB2	1:A:1602:PRO:HB2	1.67	0.76
1:C:2128:TYR:OH	1:C:3676:ASP:OD2	2.02	0.76
1:E:1780:PRO:HG2	2:F:42:ARG:HE	1.47	0.76
1:E:1245:PHE:HB2	1:E:1602:PRO:HB2	1.67	0.76
1:E:4849:TYR:OH	1:G:4574:ASN:HB3	1.86	0.76
1:G:1245:PHE:HB2	1:G:1602:PRO:HB2	1.68	0.76
1:C:3903:LEU:HD22	1:C:3915:ILE:HD12	1.66	0.75
1:C:4861:LYS:HZ1	1:C:4909:TYR:HD2	1.31	0.75
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.68	0.75
1:C:4934:GLY:HA2	1:E:4937:ILE:HD12	1.67	0.75
1:C:3948:LYS:HG3	1:C:4012:LEU:HD22	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2128:TYR:OH	1:A:3676:ASP:OD2	2.04	0.75
1:C:3958:ALA:HB3	1:C:4019:LEU:HD11	1.68	0.75
1:A:3948:LYS:HG3	1:A:4012:LEU:HD22	1.69	0.75
1:E:45:ARG:HG2	1:E:443:LEU:HD21	1.69	0.75
1:E:1115:LEU:HD12	1:E:1193:SER:HB2	1.69	0.75
1:A:3885:PHE:HE1	1:A:3919:THR:HG23	1.52	0.74
1:A:4839:MET:HG3	1:C:4822:THR:HG21	1.67	0.74
1:A:667:MET:SD	1:A:801:LYS:NZ	2.60	0.74
1:G:45:ARG:HG2	1:G:443:LEU:HD21	1.69	0.74
1:A:3958:ALA:HB3	1:A:4019:LEU:HD11	1.68	0.74
1:E:3948:LYS:HG3	1:E:4012:LEU:HD22	1.69	0.74
1:E:3958:ALA:HB3	1:E:4019:LEU:HD11	1.68	0.74
1:C:1115:LEU:HD12	1:C:1193:SER:HB2	1.69	0.74
1:C:3885:PHE:HE1	1:C:3919:THR:HG23	1.52	0.74
1:G:1115:LEU:HD12	1:G:1193:SER:HB2	1.69	0.74
1:A:1115:LEU:HD12	1:A:1193:SER:HB2	1.69	0.73
1:C:667:MET:SD	1:C:801:LYS:NZ	2.61	0.73
1:C:4138:ASP:O	1:C:4142:ASN:ND2	2.21	0.73
1:C:4839:MET:HG3	1:E:4822:THR:HG21	1.68	0.73
1:A:3996:PHE:HZ	1:A:4019:LEU:HD22	1.54	0.73
1:A:4934:GLY:HA2	1:C:4937:ILE:HD12	1.68	0.73
1:E:54:ASN:HB3	1:E:57:ASN:HB2	1.71	0.73
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.21	0.73
1:A:4138:ASP:O	1:A:4142:ASN:ND2	2.21	0.73
1:E:3996:PHE:HZ	1:E:4019:LEU:HD22	1.53	0.73
1:E:4138:ASP:O	1:E:4142:ASN:ND2	2.21	0.73
1:A:3936:TYR:HD1	1:G:76:ARG:HH22	1.37	0.73
1:C:3996:PHE:HZ	1:C:4019:LEU:HD22	1.53	0.73
1:A:4861:LYS:HZ1	1:A:4909:TYR:HD2	1.35	0.73
1:C:1927:LEU:HD11	1:C:2101:MET:HG2	1.71	0.73
1:G:3839:CYS:SG	1:G:3840:SER:N	2.60	0.73
2:H:14:THR:HG22	2:H:106:LEU:HD12	1.70	0.73
1:A:1927:LEU:HD11	1:A:2101:MET:HG2	1.71	0.73
1:A:54:ASN:HB3	1:A:57:ASN:HB2	1.70	0.73
1:G:172:VAL:HG22	1:G:179:TYR:HD1	1.54	0.73
1:A:45:ARG:HG2	1:A:443:LEU:HD21	1.69	0.72
1:C:45:ARG:HG2	1:C:443:LEU:HD21	1.69	0.72
1:E:76:ARG:HH22	1:G:3936:TYR:HD1	1.36	0.72
1:E:1723:ALA:HB1	1:E:1775:HIS:HD2	1.54	0.72
1:A:4934:GLY:CA	1:C:4937:ILE:HD12	2.19	0.72
1:C:54:ASN:HB3	1:C:57:ASN:HB2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4226:GLY:HA2	1:C:4230:LYS:HD3	1.71	0.72
1:E:667:MET:SD	1:E:801:LYS:NZ	2.60	0.72
1:A:76:ARG:HH22	1:C:3936:TYR:HD1	1.37	0.72
1:C:76:ARG:HH22	1:E:3936:TYR:HD1	1.37	0.72
1:E:172:VAL:HG22	1:E:179:TYR:HD1	1.55	0.72
1:G:1927:LEU:HD11	1:G:2101:MET:HG2	1.71	0.72
1:A:4888:TYR:CE1	1:G:4917:ASP:OD2	2.43	0.72
1:C:3839:CYS:SG	1:C:3840:SER:N	2.63	0.72
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.55	0.72
1:E:1927:LEU:HD11	1:E:2101:MET:HG2	1.71	0.72
1:G:4983:HIS:HD1	1:G:4988:TYR:HH	1.34	0.72
1:A:1723:ALA:HB1	1:A:1775:HIS:HD2	1.55	0.71
1:C:313:SER:O	1:C:350:HIS:ND1	2.23	0.71
1:C:1723:ALA:HB1	1:C:1775:HIS:HD2	1.55	0.71
1:C:4983:HIS:HD1	1:C:4988:TYR:HH	1.34	0.71
1:A:317:ARG:NH1	1:A:349:GLN:OE1	2.23	0.71
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.23	0.71
1:E:2233:CYS:HG	1:E:2271:THR:N	1.87	0.71
1:E:3885:PHE:HE1	1:E:3919:THR:HG23	1.52	0.71
1:A:235:ALA:O	1:A:238:SER:OG	2.07	0.71
1:E:1715:LEU:HD22	1:E:1844:LEU:HD11	1.72	0.71
1:G:235:ALA:O	1:G:238:SER:OG	2.07	0.71
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.56	0.71
1:C:317:ARG:NH1	1:C:349:GLN:OE1	2.23	0.71
1:A:313:SER:O	1:A:350:HIS:ND1	2.23	0.71
1:E:1828:ASP:HB3	1:E:1830:VAL:H	1.55	0.71
1:C:172:VAL:HG22	1:C:179:TYR:HD1	1.55	0.71
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.23	0.71
1:E:313:SER:O	1:E:350:HIS:ND1	2.23	0.71
1:G:4658:ILE:HG22	1:G:4792:LEU:HB3	1.73	0.71
1:A:1715:LEU:HD22	1:A:1844:LEU:HD11	1.73	0.71
1:C:1715:LEU:HD22	1:C:1844:LEU:HD11	1.72	0.71
1:E:317:ARG:NH1	1:E:349:GLN:OE1	2.23	0.71
1:G:2233:CYS:HG	1:G:2271:THR:N	1.89	0.71
1:G:4984:ASN:O	1:G:4986:ALA:N	2.22	0.71
1:A:172:VAL:HG22	1:A:179:TYR:HD1	1.54	0.71
1:E:829:TYR:OH	1:E:1612:PHE:O	2.07	0.71
1:E:4226:GLY:HA2	1:E:4230:LYS:HD3	1.71	0.71
1:G:317:ARG:NH1	1:G:349:GLN:OE1	2.23	0.71
1:G:835:ARG:HH12	1:G:1211:LEU:HD21	1.56	0.71
1:A:3839:CYS:SG	1:A:3840:SER:N	2.63	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:106:ALA:HA	1:C:149:THR:HA	1.73	0.70
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.73	0.70
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.37	0.70
1:E:3839:CYS:SG	1:E:3840:SER:N	2.63	0.70
1:G:1715:LEU:HD22	1:G:1844:LEU:HD11	1.72	0.70
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.24	0.70
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.73	0.70
1:E:697:GLY:HA3	1:E:1613:LEU:HD11	1.73	0.70
1:G:54:ASN:HB3	1:G:57:ASN:HB2	1.71	0.70
1:G:667:MET:SD	1:G:801:LYS:NZ	2.61	0.70
1:G:4837:LEU:HD11	1:G:4932:ILE:HG23	1.72	0.70
1:G:1704:PRO:HG2	1:G:1707:LEU:HD12	1.73	0.70
1:E:4861:LYS:HZ1	1:E:4909:TYR:HD2	1.38	0.70
1:A:4226:GLY:HA2	1:A:4230:LYS:HD3	1.71	0.70
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.56	0.70
1:C:4555:LEU:HD11	1:C:4656:LEU:HB2	1.73	0.70
1:A:4555:LEU:HD11	1:A:4656:LEU:HB2	1.73	0.70
1:C:3901:ASN:OD1	1:C:3904:ARG:NH1	2.17	0.70
1:E:106:ALA:HA	1:E:149:THR:HA	1.72	0.70
1:G:106:ALA:HA	1:G:149:THR:HA	1.73	0.70
1:E:835:ARG:HH12	1:E:1211:LEU:HD21	1.57	0.70
1:G:1723:ALA:HB1	1:G:1775:HIS:HD2	1.55	0.70
1:E:1802:ILE:HD12	1:E:1807:LEU:HD13	1.74	0.69
1:E:4860:ARG:NH2	1:G:4582:VAL:HB	2.07	0.69
1:A:465:GLN:HE21	1:A:3711:THR:HA	1.57	0.69
1:C:697:GLY:HA3	1:C:1613:LEU:HD11	1.72	0.69
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.73	0.69
1:C:835:ARG:HH12	1:C:1211:LEU:HD21	1.57	0.69
1:G:1154:ASP:HB2	1:G:1159:THR:HB	1.74	0.69
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.74	0.69
1:A:835:ARG:HH12	1:A:1211:LEU:HD21	1.57	0.69
1:A:4937:ILE:HD11	1:G:4934:GLY:HA3	1.72	0.69
1:E:235:ALA:O	1:E:238:SER:OG	2.07	0.69
1:A:697:GLY:HA3	1:A:1613:LEU:HD11	1.73	0.69
1:A:1154:ASP:HB2	1:A:1159:THR:HB	1.74	0.69
1:A:2233:CYS:HG	1:A:2271:THR:N	1.89	0.69
1:C:2166:LEU:HD12	1:C:2206:THR:HG23	1.74	0.69
1:E:4555:LEU:HD11	1:E:4656:LEU:HB2	1.73	0.69
1:G:313:SER:O	1:G:350:HIS:ND1	2.23	0.69
1:G:1637:MET:HG3	1:G:1650:ILE:HD12	1.74	0.69
1:C:4934:GLY:CA	1:E:4937:ILE:CD1	2.69	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3835:LEU:HD11	1:E:3884:LEU:HD13	1.75	0.69
1:G:2158:CYS:SG	1:G:2184:ASN:ND2	2.63	0.69
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.75	0.69
1:C:595:ARG:NH2	1:C:631:LEU:O	2.25	0.69
1:G:697:GLY:HA3	1:G:1613:LEU:HD11	1.73	0.69
1:A:106:ALA:HA	1:A:149:THR:HA	1.73	0.69
1:A:168:ASP:OD1	1:A:201:ASN:ND2	2.25	0.69
1:A:215:THR:HG22	1:A:273:HIS:HA	1.75	0.69
1:A:1673:VAL:HG12	1:A:1681:VAL:HG11	1.75	0.69
1:C:235:ALA:O	1:C:238:SER:OG	2.07	0.69
1:E:4708:THR:HG22	1:E:4710:SER:H	1.58	0.69
1:G:634:GLN:HB3	1:G:1640:HIS:CE1	2.28	0.69
1:G:887:ILE:HA	1:G:891:TRP:HB2	1.75	0.69
1:G:3980:LEU:HD21	1:G:3985:LEU:HD22	1.75	0.69
1:G:4682:GLU:OE2	1:G:4723:LYS:NZ	2.25	0.69
1:G:4708:THR:O	1:G:4721:LYS:NZ	2.26	0.69
1:A:825:PRO:HD3	1:A:1619:ARG:HH11	1.58	0.69
1:C:825:PRO:HD3	1:C:1619:ARG:HH11	1.58	0.69
1:C:829:TYR:OH	1:C:1612:PHE:O	2.07	0.69
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.75	0.69
1:E:1154:ASP:HB2	1:E:1159:THR:HB	1.74	0.69
1:A:143:GLY:O	1:A:145:ALA:N	2.26	0.69
1:A:634:GLN:HB3	1:A:1640:HIS:CE1	2.28	0.69
1:A:3835:LEU:HD11	1:A:3884:LEU:HD13	1.74	0.69
1:E:825:PRO:HD3	1:E:1619:ARG:HH11	1.58	0.69
1:E:4984:ASN:O	1:E:4986:ALA:N	2.26	0.69
1:G:168:ASP:OD1	1:G:201:ASN:ND2	2.25	0.69
1:G:595:ARG:NH2	1:G:631:LEU:O	2.26	0.69
1:G:825:PRO:HD3	1:G:1619:ARG:HH11	1.58	0.69
1:G:1673:VAL:HG12	1:G:1681:VAL:HG11	1.75	0.69
1:G:1802:ILE:HD12	1:G:1807:LEU:HD13	1.74	0.69
1:A:495:ASN:O	1:A:553:ARG:NH1	2.26	0.68
1:A:4991:PHE:HE2	1:A:5010:VAL:HG11	1.58	0.68
1:E:215:THR:HG22	1:E:273:HIS:HA	1.75	0.68
1:E:465:GLN:HE21	1:E:3711:THR:HA	1.57	0.68
1:A:3901:ASN:OD1	1:A:3904:ARG:NH1	2.16	0.68
1:A:4860:ARG:NH2	1:C:4582:VAL:HB	2.09	0.68
1:A:4934:GLY:CA	1:C:4937:ILE:CD1	2.70	0.68
1:E:887:ILE:HA	1:E:891:TRP:HB2	1.76	0.68
1:C:168:ASP:OD1	1:C:201:ASN:ND2	2.25	0.68
1:C:215:THR:HG22	1:C:273:HIS:HA	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1673:VAL:HG12	1:C:1681:VAL:HG11	1.76	0.68
1:C:4983:HIS:ND1	1:C:4988:TYR:OH	2.26	0.68
1:E:595:ARG:NH2	1:E:631:LEU:O	2.26	0.68
1:E:634:GLN:HB3	1:E:1640:HIS:CE1	2.28	0.68
1:A:595:ARG:NH2	1:A:631:LEU:O	2.26	0.68
1:C:143:GLY:O	1:C:145:ALA:N	2.26	0.68
1:C:634:GLN:HB3	1:C:1640:HIS:CE1	2.28	0.68
1:G:215:THR:HG22	1:G:273:HIS:HA	1.75	0.68
1:G:2166:LEU:HD12	1:G:2206:THR:HG23	1.75	0.68
1:A:4708:THR:HG22	1:A:4710:SER:H	1.59	0.68
1:C:1802:ILE:HD12	1:C:1807:LEU:HD13	1.75	0.68
1:A:1802:ILE:HD12	1:A:1807:LEU:HD13	1.75	0.68
1:A:4937:ILE:HD11	1:G:4934:GLY:HA2	1.76	0.68
1:C:887:ILE:HA	1:C:891:TRP:HB2	1.75	0.68
1:E:3817:LEU:HD11	1:E:3821:LYS:NZ	2.08	0.68
1:A:829:TYR:OH	1:A:1612:PHE:O	2.07	0.68
1:A:1259:ARG:NH1	1:A:1597:VAL:HA	2.09	0.68
1:A:4983:HIS:HD1	1:A:4988:TYR:HH	1.41	0.68
1:C:465:GLN:HE21	1:C:3711:THR:HA	1.57	0.68
1:E:1673:VAL:HG12	1:E:1681:VAL:HG11	1.75	0.68
1:G:4983:HIS:ND1	1:G:4988:TYR:OH	2.25	0.68
1:C:495:ASN:O	1:C:553:ARG:NH1	2.27	0.68
1:E:1704:PRO:HG2	1:E:1707:LEU:HD12	1.76	0.68
1:E:2158:CYS:SG	1:E:2184:ASN:ND2	2.64	0.68
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.75	0.68
1:G:495:ASN:O	1:G:553:ARG:NH1	2.27	0.68
1:C:1154:ASP:HB2	1:C:1159:THR:HB	1.74	0.68
1:C:4934:GLY:HA3	1:E:4937:ILE:CD1	2.24	0.68
1:A:887:ILE:HA	1:A:891:TRP:HB2	1.75	0.68
1:A:2166:LEU:HD12	1:A:2206:THR:HG23	1.75	0.68
1:G:3948:LYS:HG3	1:G:4012:LEU:HD22	1.76	0.68
1:E:495:ASN:O	1:E:553:ARG:NH1	2.27	0.67
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.59	0.67
1:G:143:GLY:O	1:G:145:ALA:N	2.26	0.67
1:A:3817:LEU:HD11	1:A:3821:LYS:NZ	2.08	0.67
1:G:4991:PHE:HE2	1:G:5010:VAL:HG11	1.58	0.67
1:A:4984:ASN:O	1:A:4986:ALA:N	2.26	0.67
1:C:3817:LEU:HD11	1:C:3821:LYS:NZ	2.08	0.67
1:C:4837:LEU:HD11	1:C:4932:ILE:HG23	1.76	0.67
1:E:1259:ARG:NH1	1:E:1597:VAL:HA	2.09	0.67
1:C:4984:ASN:O	1:C:4986:ALA:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4708:THR:HG22	1:G:4710:SER:H	1.60	0.67
1:A:4878:ASP:HA	1:C:4581:LYS:HB3	1.76	0.67
1:C:2233:CYS:HG	1:C:2271:THR:N	1.93	0.67
1:E:2166:LEU:HD12	1:E:2206:THR:HG23	1.75	0.67
1:G:1259:ARG:NH1	1:G:1597:VAL:HA	2.10	0.67
1:A:320:LYS:NZ	1:A:382:GLY:O	2.27	0.67
1:C:1637:MET:HG3	1:C:1650:ILE:HD12	1.77	0.67
1:C:4991:PHE:HE2	1:C:5010:VAL:HG11	1.59	0.67
1:E:4983:HIS:ND1	1:E:4988:TYR:OH	2.26	0.67
1:G:320:LYS:NZ	1:G:382:GLY:O	2.27	0.67
1:G:1639:LEU:HD23	1:G:1650:ILE:HG12	1.77	0.67
1:E:1637:MET:HG3	1:E:1650:ILE:HD12	1.77	0.66
1:E:1639:LEU:HD23	1:E:1650:ILE:HG12	1.77	0.66
1:A:1639:LEU:HD23	1:A:1650:ILE:HG12	1.77	0.66
1:A:1704:PRO:HG2	1:A:1707:LEU:HD12	1.76	0.66
1:A:4582:VAL:HB	1:G:4860:ARG:NH2	2.10	0.66
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.60	0.66
1:A:23:GLN:HE21	1:A:34:LYS:HB3	1.61	0.66
1:A:2499:LYS:HD2	1:A:2553:TYR:HE1	1.61	0.66
1:C:1259:ARG:NH1	1:C:1597:VAL:HA	2.10	0.66
1:E:3901:ASN:OD1	1:E:3904:ARG:NH1	2.17	0.66
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.61	0.66
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.77	0.66
1:C:320:LYS:NZ	1:C:382:GLY:O	2.27	0.66
1:C:4708:THR:HG22	1:C:4710:SER:H	1.59	0.66
1:C:4860:ARG:NH2	1:E:4582:VAL:HB	2.11	0.66
1:G:743:VAL:HG21	1:G:801:LYS:HD2	1.77	0.66
1:C:23:GLN:HE21	1:C:34:LYS:HB3	1.61	0.66
1:C:2299:VAL:HG21	1:C:2356:LEU:HB3	1.78	0.66
1:C:2499:LYS:HD2	1:C:2553:TYR:HE1	1.61	0.66
1:E:168:ASP:OD1	1:E:201:ASN:ND2	2.25	0.66
1:G:829:TYR:OH	1:G:1612:PHE:O	2.07	0.66
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.61	0.66
1:E:4914:VAL:HG13	1:G:4888:TYR:HD1	1.60	0.66
1:E:4983:HIS:HD1	1:E:4988:TYR:HH	1.40	0.66
1:G:4913:ARG:NH1	1:G:4917:ASP:HB2	2.09	0.66
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.77	0.66
1:G:595:ARG:HG2	1:G:1662:PHE:CZ	2.31	0.66
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.78	0.66
1:C:1704:PRO:HG2	1:C:1707:LEU:HD12	1.76	0.66
1:E:2340:PHE:HB2	1:E:2435:ARG:HD3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4878:ASP:HA	1:G:4581:LYS:HB3	1.77	0.66
1:C:4656:LEU:HA	1:C:4659:ILE:HG22	1.78	0.66
1:E:2499:LYS:HD2	1:E:2553:TYR:HE1	1.61	0.66
1:E:4843:LEU:CD1	1:G:4827:LEU:HD11	2.26	0.66
1:E:143:GLY:O	1:E:145:ALA:N	2.26	0.65
1:E:320:LYS:NZ	1:E:382:GLY:O	2.27	0.65
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.60	0.65
1:E:2299:VAL:HG21	1:E:2356:LEU:HB3	1.78	0.65
1:G:2340:PHE:HB2	1:G:2435:ARG:HD3	1.78	0.65
1:G:4856:PHE:O	1:G:4860:ARG:NE	2.28	0.65
1:A:743:VAL:HG21	1:A:801:LYS:HD2	1.77	0.65
1:C:743:VAL:HG21	1:C:801:LYS:HD2	1.77	0.65
1:C:1648:MET:SD	1:C:1656:ARG:NH2	2.69	0.65
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	1.96	0.65
1:G:3958:ALA:HB3	1:G:4019:LEU:HD11	1.77	0.65
1:A:595:ARG:HG2	1:A:1662:PHE:CZ	2.31	0.65
1:A:2340:PHE:HB2	1:A:2435:ARG:HD3	1.77	0.65
1:A:4837:LEU:HD11	1:A:4932:ILE:HG23	1.77	0.65
1:E:595:ARG:HG2	1:E:1662:PHE:CZ	2.31	0.65
1:E:4656:LEU:HA	1:E:4659:ILE:HG22	1.79	0.65
1:G:3423:TRP:O	1:G:3427:PRO:N	2.29	0.65
1:G:3817:LEU:HD11	1:G:3821:LYS:NZ	2.12	0.65
1:A:2299:VAL:HG21	1:A:2356:LEU:HB3	1.78	0.65
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.14	0.65
1:A:2158:CYS:SG	1:A:2184:ASN:ND2	2.64	0.65
1:A:4861:LYS:NZ	1:A:4909:TYR:HD2	1.94	0.65
1:C:627:PRO:HG3	2:D:89:GLY:C	2.17	0.65
1:C:1639:LEU:HD23	1:C:1650:ILE:HG12	1.77	0.65
1:C:2340:PHE:HB2	1:C:2435:ARG:HD3	1.77	0.65
1:C:3950:ASN:HA	1:C:3953:LYS:HD3	1.79	0.65
1:G:2299:VAL:HG21	1:G:2356:LEU:HB3	1.78	0.65
1:E:4917:ASP:OD2	1:G:4892:ARG:CZ	2.45	0.65
1:A:1455:PRO:HA	1:A:1549:PHE:HE2	1.61	0.65
1:A:3893:GLU:HA	1:A:3967:GLU:OE2	1.96	0.65
1:E:743:VAL:HG21	1:E:801:LYS:HD2	1.78	0.65
1:G:1648:MET:SD	1:G:1656:ARG:NH2	2.70	0.65
1:A:1637:MET:HG3	1:A:1650:ILE:HD12	1.77	0.65
1:A:1648:MET:SD	1:A:1656:ARG:NH2	2.69	0.65
1:C:1455:PRO:HA	1:C:1549:PHE:HE2	1.60	0.65
1:A:4656:LEU:HA	1:A:4659:ILE:HG22	1.79	0.65
1:E:3950:ASN:HA	1:E:3953:LYS:HD3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:728:ARG:NH2	1:G:1487:LEU:O	2.30	0.65
1:G:2499:LYS:HD2	1:G:2553:TYR:HE1	1.61	0.65
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.78	0.65
1:A:3878:ASP:OD2	1:A:3953:LYS:HB3	1.97	0.64
1:C:4878:ASP:HA	1:E:4581:LYS:HB3	1.79	0.64
1:E:475:GLN:NE2	1:E:528:SER:O	2.30	0.64
1:C:3835:LEU:HD11	1:C:3884:LEU:HD13	1.77	0.64
1:C:3893:GLU:HA	1:C:3967:GLU:OE2	1.96	0.64
1:G:736:HIS:HE2	1:G:739:ALA:HB2	1.62	0.64
1:C:728:ARG:NH2	1:C:1487:LEU:O	2.30	0.64
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.78	0.64
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.77	0.64
1:E:4861:LYS:NZ	1:E:4909:TYR:HD2	1.95	0.64
1:C:595:ARG:HG2	1:C:1662:PHE:CZ	2.31	0.64
1:E:539:LEU:O	1:E:543:ASN:ND2	2.31	0.64
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.78	0.64
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.79	0.64
1:G:4172:GLU:HA	1:G:4175:ARG:NH1	2.12	0.64
1:A:3950:ASN:HA	1:A:3953:LYS:HD3	1.79	0.64
1:C:162:LYS:NZ	1:E:4050:GLU:OE2	2.31	0.64
1:C:539:LEU:O	1:C:543:ASN:ND2	2.29	0.64
1:C:4821:LYS:HD2	1:C:4824:ARG:HH21	1.63	0.64
1:C:4861:LYS:NZ	1:C:4909:TYR:HD2	1.95	0.64
1:E:627:PRO:HG3	2:F:89:GLY:C	2.18	0.64
1:E:1648:MET:SD	1:E:1656:ARG:NH2	2.70	0.64
1:G:4913:ARG:HH12	1:G:4917:ASP:HB2	1.63	0.64
1:E:728:ARG:NH2	1:E:1487:LEU:O	2.30	0.64
1:G:627:PRO:HG3	2:H:89:GLY:C	2.18	0.64
1:A:539:LEU:O	1:A:543:ASN:ND2	2.30	0.64
1:C:2158:CYS:SG	1:C:2184:ASN:ND2	2.63	0.64
1:E:4837:LEU:HD11	1:E:4932:ILE:HG23	1.79	0.64
1:G:23:GLN:HE21	1:G:34:LYS:HB3	1.61	0.64
1:G:2929:PHE:O	1:G:2933:ASN:ND2	2.30	0.64
1:E:23:GLN:HE21	1:E:34:LYS:HB3	1.61	0.64
1:G:1455:PRO:HA	1:G:1549:PHE:HE2	1.61	0.64
1:G:1667:LEU:HD23	1:G:1710:GLY:HA3	1.80	0.64
1:E:4934:GLY:HA2	1:G:4937:ILE:HD12	1.80	0.63
1:G:1075:PHE:HB2	1:G:1192:CYS:HB3	1.80	0.63
1:G:2625:ARG:HA	1:G:2910:THR:HG22	1.80	0.63
1:A:1667:LEU:HD23	1:A:1710:GLY:HA3	1.80	0.63
1:E:1243:PRO:HD2	1:E:1458:HIS:CB	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1235:THR:HA	1:G:1612:PHE:HE1	1.63	0.63
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.78	0.63
1:A:627:PRO:HG3	2:B:89:GLY:C	2.18	0.63
1:A:1235:THR:HA	1:A:1612:PHE:HE1	1.63	0.63
1:C:993:HIS:HE1	1:C:1020:ARG:HB3	1.62	0.63
1:C:1077:ALA:HB3	1:C:1189:LEU:HB3	1.80	0.63
1:G:1115:LEU:O	1:G:1132:TRP:NE1	2.31	0.63
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	1.99	0.63
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.78	0.63
1:G:669:ASP:OD2	1:G:790:ARG:HG2	1.98	0.63
1:G:3885:PHE:CE1	1:G:3919:THR:HG23	2.33	0.63
1:C:2625:ARG:HA	1:C:2910:THR:HG22	1.80	0.63
1:C:4680:LYS:HD3	1:C:4686:LEU:HD21	1.81	0.63
1:E:3878:ASP:OD2	1:E:3953:LYS:HB3	1.98	0.63
1:G:4922:PHE:HA	1:G:4926:VAL:HB	1.81	0.63
1:A:475:GLN:NE2	1:A:528:SER:O	2.30	0.63
1:A:669:ASP:OD2	1:A:790:ARG:HG2	1.98	0.63
1:A:1089:TYR:HD1	1:A:1152:MET:HG2	1.64	0.63
1:A:4691:GLN:HB2	1:A:4703:ARG:HH22	1.63	0.63
1:C:475:GLN:NE2	1:C:528:SER:O	2.31	0.63
1:G:4868:ASP:OD1	1:G:4869:GLU:N	2.31	0.63
1:A:1075:PHE:HB2	1:A:1192:CYS:HB3	1.81	0.63
1:A:1849:LEU:HD13	1:A:1854:PHE:HD2	1.64	0.63
1:C:1667:LEU:HD23	1:C:1710:GLY:HA3	1.80	0.63
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.80	0.63
1:G:274:LEU:HD12	1:G:278:GLN:HE21	1.64	0.63
1:G:475:GLN:NE2	1:G:528:SER:O	2.31	0.63
1:G:569:ILE:HG23	1:G:570:GLU:HG2	1.81	0.63
1:A:569:ILE:HG23	1:A:570:GLU:HG2	1.81	0.63
1:C:4917:ASP:OD2	1:E:4892:ARG:CZ	2.46	0.63
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.32	0.63
1:G:168:ASP:HB3	1:G:199:LEU:HD22	1.80	0.63
1:G:1849:LEU:HD13	1:G:1854:PHE:HD2	1.64	0.63
1:A:168:ASP:HB3	1:A:199:LEU:HD22	1.81	0.63
1:A:728:ARG:NH2	1:A:1487:LEU:O	2.30	0.63
1:C:4691:GLN:HB2	1:C:4703:ARG:HH22	1.63	0.63
1:E:2625:ARG:HA	1:E:2910:THR:HG22	1.80	0.63
1:E:4680:LYS:HD3	1:E:4686:LEU:HD21	1.81	0.63
1:E:4914:VAL:HG13	1:G:4888:TYR:CD1	2.34	0.63
1:A:993:HIS:HE1	1:A:1020:ARG:HB3	1.63	0.62
1:E:4868:ASP:OD1	1:E:4869:GLU:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.81	0.62
1:E:274:LEU:HD12	1:E:278:GLN:HE21	1.64	0.62
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.32	0.62
1:A:1077:ALA:HB3	1:A:1189:LEU:HB3	1.81	0.62
1:C:1235:THR:HA	1:C:1612:PHE:HE1	1.64	0.62
1:C:3878:ASP:OD2	1:C:3953:LYS:HB3	1.98	0.62
1:E:168:ASP:HB3	1:E:199:LEU:HD22	1.80	0.62
1:E:669:ASP:OD2	1:E:790:ARG:HG2	1.98	0.62
1:E:1235:THR:HA	1:E:1612:PHE:HE1	1.63	0.62
1:G:993:HIS:HE1	1:G:1020:ARG:HB3	1.62	0.62
1:G:3813:GLN:OE1	1:G:3896:ASN:ND2	2.32	0.62
1:A:2625:ARG:HA	1:A:2910:THR:HG22	1.80	0.62
1:A:4983:HIS:ND1	1:A:4988:TYR:OH	2.26	0.62
1:C:4934:GLY:HA2	1:E:4937:ILE:CD1	2.27	0.62
1:E:1455:PRO:HA	1:E:1549:PHE:HE2	1.62	0.62
1:G:1077:ALA:HB3	1:G:1189:LEU:HB3	1.80	0.62
1:A:4843:LEU:HD11	1:C:4827:LEU:HD11	1.82	0.62
1:C:1089:TYR:HD1	1:C:1152:MET:HG2	1.64	0.62
1:C:4239:GLU:HA	1:C:4242:ILE:HD12	1.82	0.62
1:E:993:HIS:HE1	1:E:1020:ARG:HB3	1.63	0.62
1:G:284:HIS:NE2	1:G:286:THR:OG1	2.32	0.62
1:A:4680:LYS:HD3	1:A:4686:LEU:HD21	1.81	0.62
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.81	0.62
1:E:284:HIS:NE2	1:E:286:THR:OG1	2.32	0.62
1:E:1115:LEU:O	1:E:1132:TRP:NE1	2.31	0.62
1:E:1667:LEU:HD23	1:E:1710:GLY:HA3	1.81	0.62
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.32	0.62
1:C:669:ASP:OD2	1:C:790:ARG:HG2	1.99	0.62
1:C:1115:LEU:O	1:C:1132:TRP:NE1	2.31	0.62
1:A:1109:LEU:HA	1:A:1120:LEU:HD13	1.82	0.62
1:E:1075:PHE:HB2	1:E:1192:CYS:HB3	1.81	0.62
1:E:4821:LYS:HD2	1:E:4824:ARG:HH21	1.62	0.62
1:G:539:LEU:O	1:G:543:ASN:ND2	2.30	0.62
1:A:274:LEU:HD12	1:A:278:GLN:HE21	1.63	0.62
1:A:1111:PRO:HB2	1:A:1607:ARG:HG3	1.82	0.62
1:C:172:VAL:HG22	1:C:179:TYR:CD1	2.34	0.62
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.33	0.62
1:C:4083:ASP:O	1:C:4085:ARG:N	2.33	0.62
1:E:69:LEU:HD13	1:E:101:LEU:HD11	1.82	0.62
1:G:1943:LEU:HD11	1:G:2098:VAL:HG22	1.81	0.62
1:A:1115:LEU:O	1:A:1132:TRP:NE1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4239:GLU:HA	1:A:4242:ILE:HD12	1.82	0.61
1:C:284:HIS:NE2	1:C:286:THR:OG1	2.32	0.61
1:E:1077:ALA:HB3	1:E:1189:LEU:HB3	1.80	0.61
1:E:2133:GLU:HA	1:E:2136:ARG:HE	1.65	0.61
1:G:69:LEU:HD13	1:G:101:LEU:HD11	1.82	0.61
1:A:284:HIS:NE2	1:A:286:THR:OG1	2.32	0.61
1:A:3769:ARG:O	1:A:3773:ARG:NH1	2.33	0.61
1:A:3992:PHE:O	1:A:3996:PHE:N	2.30	0.61
1:C:623:GLU:OE2	2:D:89:GLY:N	2.33	0.61
1:E:1089:TYR:HD1	1:E:1152:MET:HG2	1.64	0.61
1:G:1089:TYR:HD1	1:G:1152:MET:HG2	1.64	0.61
1:C:168:ASP:HB3	1:C:199:LEU:HD22	1.80	0.61
1:E:623:GLU:OE2	2:F:89:GLY:N	2.34	0.61
1:E:4839:MET:O	1:G:4823:LEU:HD21	2.01	0.61
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.81	0.61
1:C:569:ILE:HG23	1:C:570:GLU:HG2	1.81	0.61
1:E:569:ILE:HG23	1:E:570:GLU:HG2	1.81	0.61
1:E:1849:LEU:HD13	1:E:1854:PHE:HD2	1.64	0.61
1:E:4083:ASP:O	1:E:4085:ARG:N	2.33	0.61
1:A:172:VAL:HG22	1:A:179:TYR:CD1	2.34	0.61
1:A:2358:ILE:CG2	1:G:195:PHE:CD1	2.83	0.61
1:A:4083:ASP:O	1:A:4085:ARG:N	2.33	0.61
1:C:1075:PHE:HB2	1:C:1192:CYS:HB3	1.81	0.61
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.39	0.61
1:C:274:LEU:HD12	1:C:278:GLN:HE21	1.64	0.61
1:C:1849:LEU:HD13	1:C:1854:PHE:HD2	1.64	0.61
1:C:4934:GLY:CA	1:E:4937:ILE:HD12	2.30	0.61
1:C:1111:PRO:HB2	1:C:1607:ARG:HG3	1.83	0.61
1:E:4691:GLN:HB2	1:E:4703:ARG:HH22	1.64	0.61
1:G:4083:ASP:O	1:G:4085:ARG:N	2.33	0.61
1:E:23:GLN:OE1	1:E:203:ASN:ND2	2.33	0.61
1:E:2248:ARG:HA	1:E:2251:PHE:HB3	1.83	0.61
1:G:4087:LEU:HG	1:G:4122:MET:HA	1.83	0.61
1:A:23:GLN:OE1	1:A:203:ASN:ND2	2.34	0.61
1:A:3767:GLN:HE22	1:A:3806:ASN:HB3	1.65	0.61
1:E:3769:ARG:O	1:E:3773:ARG:NH1	2.33	0.61
1:E:4239:GLU:HA	1:E:4242:ILE:HD12	1.82	0.61
1:A:688:LEU:HB2	1:A:775:GLY:HA3	1.83	0.61
1:A:1961:PHE:CD1	1:A:2066:LEU:HD13	2.36	0.61
1:C:69:LEU:HD13	1:C:101:LEU:HD11	1.82	0.61
1:C:195:PHE:CD1	1:E:2358:ILE:CG2	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3767:GLN:HE22	1:C:3806:ASN:HB3	1.64	0.61
1:C:3769:ARG:O	1:C:3773:ARG:NH1	2.32	0.61
1:E:347:PHE:HE1	1:E:387:ALA:HB2	1.65	0.61
1:G:1111:PRO:HB2	1:G:1607:ARG:HG3	1.83	0.61
1:G:2248:ARG:HA	1:G:2251:PHE:HB3	1.83	0.61
1:A:69:LEU:HD13	1:A:101:LEU:HD11	1.82	0.60
1:A:607:CYS:SG	1:A:1673:VAL:HA	2.41	0.60
1:E:1943:LEU:HD11	1:E:2098:VAL:HG22	1.83	0.60
1:A:2547:ALA:O	1:A:2550:LEU:HG	2.01	0.60
1:C:1961:PHE:CD1	1:C:2066:LEU:HD13	2.36	0.60
1:E:2547:ALA:O	1:E:2550:LEU:HG	2.02	0.60
1:G:172:VAL:HG22	1:G:179:TYR:CD1	2.34	0.60
1:G:347:PHE:HE1	1:G:387:ALA:HB2	1.65	0.60
1:A:4867:GLU:HB2	1:A:4872:PRO:HG2	1.84	0.60
1:E:3767:GLN:HE22	1:E:3806:ASN:HB3	1.67	0.60
1:G:688:LEU:HB2	1:G:775:GLY:HA3	1.83	0.60
1:G:1961:PHE:CD1	1:G:2066:LEU:HD13	2.36	0.60
1:G:3878:ASP:OD2	1:G:3953:LYS:HB3	1.99	0.60
1:G:4112:LEU:HD22	1:G:4123:ILE:HD13	1.82	0.60
1:G:4867:GLU:HB2	1:G:4872:PRO:HG2	1.83	0.60
1:A:22:LEU:HD12	1:A:37:LEU:HD23	1.84	0.60
1:A:4050:GLU:OE2	1:G:162:LYS:NZ	2.31	0.60
1:A:4868:ASP:OD1	1:A:4869:GLU:N	2.31	0.60
1:C:607:CYS:SG	1:C:1673:VAL:HA	2.41	0.60
1:C:1943:LEU:HD11	1:C:2098:VAL:HG22	1.83	0.60
1:C:2547:ALA:O	1:C:2550:LEU:HG	2.02	0.60
1:E:172:VAL:HG22	1:E:179:TYR:CD1	2.34	0.60
1:E:1961:PHE:CD1	1:E:2066:LEU:HD13	2.36	0.60
1:E:4867:GLU:HB2	1:E:4872:PRO:HG2	1.84	0.60
1:G:2547:ALA:O	1:G:2550:LEU:HG	2.02	0.60
1:G:4861:LYS:NZ	1:G:4909:TYR:HD2	1.98	0.60
1:A:244:LEU:HD22	1:A:375:LYS:HZ1	1.67	0.60
1:C:76:ARG:CZ	1:E:3936:TYR:HA	2.32	0.60
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.83	0.60
1:E:317:ARG:HH22	1:E:322:LYS:HA	1.67	0.60
1:G:623:GLU:OE2	2:H:89:GLY:N	2.34	0.60
1:G:2450:ALA:O	1:G:2453:ILE:HG22	2.02	0.60
1:A:4856:PHE:O	1:A:4860:ARG:NE	2.33	0.60
1:C:22:LEU:HD12	1:C:37:LEU:HD23	1.84	0.60
1:C:768:PHE:HA	1:C:1474:VAL:HA	1.83	0.60
1:C:4843:LEU:HD11	1:E:4827:LEU:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1109:LEU:HA	1:G:1120:LEU:HD13	1.82	0.60
1:A:347:PHE:HE1	1:A:387:ALA:HB2	1.65	0.60
1:A:623:GLU:OE2	2:B:89:GLY:N	2.34	0.60
1:C:317:ARG:HH22	1:C:322:LYS:HA	1.67	0.60
1:C:2450:ALA:O	1:C:2453:ILE:HG22	2.02	0.60
1:E:768:PHE:HA	1:E:1474:VAL:HA	1.83	0.60
1:G:23:GLN:OE1	1:G:203:ASN:ND2	2.34	0.60
1:G:607:CYS:SG	1:G:1673:VAL:HA	2.41	0.60
1:C:176:SER:HB2	1:C:178:ARG:HH21	1.67	0.60
1:C:1109:LEU:HA	1:C:1120:LEU:HD13	1.83	0.60
1:C:2248:ARG:HA	1:C:2251:PHE:HB3	1.83	0.60
1:E:607:CYS:SG	1:E:1673:VAL:HA	2.41	0.60
1:E:1083:VAL:O	1:E:1188:PHE:N	2.33	0.60
1:E:4909:TYR:O	1:E:4913:ARG:N	2.33	0.60
1:A:76:ARG:CZ	1:C:3936:TYR:HA	2.31	0.60
1:A:3936:TYR:HA	1:G:76:ARG:CZ	2.31	0.60
1:A:4917:ASP:OD2	1:C:4892:ARG:CZ	2.49	0.60
1:G:2136:ARG:HH11	1:G:3720:TYR:HE2	1.48	0.60
1:C:347:PHE:HE1	1:C:387:ALA:HB2	1.65	0.60
1:C:4839:MET:O	1:E:4823:LEU:HD21	2.02	0.60
1:C:4868:ASP:OD1	1:C:4869:GLU:N	2.32	0.60
1:E:1111:PRO:HB2	1:E:1607:ARG:HG3	1.83	0.60
1:E:2450:ALA:O	1:E:2453:ILE:HG22	2.02	0.60
1:G:176:SER:HB2	1:G:178:ARG:HH21	1.67	0.60
1:A:1083:VAL:O	1:A:1188:PHE:N	2.33	0.59
1:A:2248:ARG:HA	1:A:2251:PHE:HB3	1.83	0.59
1:A:4570:ALA:O	1:A:4574:ASN:ND2	2.33	0.59
1:E:22:LEU:HD12	1:E:37:LEU:HD23	1.83	0.59
1:A:1781:CYS:HG	2:B:46:PHE:HE1	1.43	0.59
1:A:3709:ALA:HB2	1:A:3782:MET:SD	2.42	0.59
1:A:4581:LYS:HB3	1:G:4878:ASP:HA	1.83	0.59
1:C:1808:ARG:HA	1:C:1848:LEU:HD21	1.84	0.59
1:G:768:PHE:HA	1:G:1474:VAL:HA	1.83	0.59
1:G:3914:ASN:ND2	1:G:3979:SER:OG	2.32	0.59
1:A:195:PHE:CD1	1:C:2358:ILE:CG2	2.84	0.59
1:A:4839:MET:O	1:C:4823:LEU:HD21	2.01	0.59
1:C:23:GLN:OE1	1:C:203:ASN:ND2	2.34	0.59
1:C:4867:GLU:HB2	1:C:4872:PRO:HG2	1.84	0.59
1:C:4871:GLU:HB2	1:C:4872:PRO:HD3	1.84	0.59
1:G:316:PHE:HB3	1:G:346:CYS:HB3	1.85	0.59
1:G:4815:ASP:O	1:G:4819:GLY:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1455:PRO:HA	1:A:1549:PHE:CE2	2.37	0.59
1:A:1943:LEU:HD11	1:A:2098:VAL:HG22	1.83	0.59
1:A:4871:GLU:HB2	1:A:4872:PRO:HD3	1.84	0.59
1:E:317:ARG:NH2	1:E:321:GLU:O	2.36	0.59
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.83	0.59
1:G:677:ALA:HA	2:H:40:ARG:HB3	1.83	0.59
1:G:830:ARG:HD3	1:G:1616:GLU:OE2	2.02	0.59
1:G:1257:VAL:HG12	1:G:1277:TRP:CH2	2.38	0.59
1:G:1781:CYS:SG	2:H:46:PHE:HE1	2.25	0.59
1:A:162:LYS:NZ	1:C:4050:GLU:OE2	2.33	0.59
1:A:4821:LYS:HD2	1:A:4824:ARG:HH21	1.66	0.59
1:C:317:ARG:NH2	1:C:321:GLU:O	2.36	0.59
1:E:4871:GLU:HB2	1:E:4872:PRO:HD3	1.85	0.59
1:A:317:ARG:NH2	1:A:321:GLU:O	2.36	0.59
1:A:2450:ALA:O	1:A:2453:ILE:HG22	2.02	0.59
1:A:4823:LEU:HD21	1:G:4839:MET:C	2.22	0.59
1:C:1083:VAL:O	1:C:1188:PHE:N	2.33	0.59
1:E:176:SER:HB2	1:E:178:ARG:HH21	1.67	0.59
1:E:195:PHE:CD1	1:G:2358:ILE:CG2	2.84	0.59
1:E:688:LEU:HB2	1:E:775:GLY:HA3	1.83	0.59
1:E:1220:GLN:NE2	1:G:3484:ALA:HB1	2.18	0.59
1:G:22:LEU:HD12	1:G:37:LEU:HD23	1.84	0.59
1:G:3995:VAL:HG13	1:G:3999:MET:HG3	1.85	0.59
1:C:316:PHE:HB3	1:C:346:CYS:HB3	1.85	0.59
1:C:533:ASN:HB3	1:C:536:ASN:HD22	1.68	0.59
1:C:821:LEU:O	1:C:1626:TRP:NE1	2.36	0.59
1:C:1220:GLN:NE2	1:E:3484:ALA:HB1	2.18	0.59
1:E:244:LEU:HD22	1:E:375:LYS:HZ1	1.68	0.59
1:E:4856:PHE:O	1:E:4860:ARG:NE	2.33	0.59
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.68	0.59
1:A:176:SER:HB2	1:A:178:ARG:HH21	1.67	0.59
1:A:317:ARG:HH22	1:A:322:LYS:HA	1.67	0.59
1:C:4035:VAL:HG12	1:C:4036:VAL:H	1.68	0.59
1:E:830:ARG:HD3	1:E:1616:GLU:OE2	2.03	0.59
1:E:1808:ARG:HA	1:E:1848:LEU:HD21	1.85	0.59
1:G:1808:ARG:HA	1:G:1848:LEU:HD21	1.85	0.59
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.30	0.59
1:A:4822:THR:HG21	1:G:4839:MET:HG3	1.83	0.59
1:C:688:LEU:HB2	1:C:775:GLY:HA3	1.83	0.59
1:C:830:ARG:HD3	1:C:1616:GLU:OE2	2.02	0.59
1:E:316:PHE:HB3	1:E:346:CYS:HB3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4035:VAL:HG12	1:E:4036:VAL:H	1.67	0.59
1:G:4871:GLU:HB2	1:G:4872:PRO:HD3	1.85	0.59
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.12	0.59
1:C:1257:VAL:HG12	1:C:1277:TRP:CH2	2.38	0.59
1:C:3709:ALA:HB2	1:C:3782:MET:SD	2.42	0.59
1:A:316:PHE:HB3	1:A:346:CYS:HB3	1.85	0.58
1:A:636:ASN:OD1	1:A:637:LEU:N	2.36	0.58
1:A:4185:GLY:O	1:A:4187:SER:N	2.34	0.58
1:C:1455:PRO:HA	1:C:1549:PHE:CE2	2.37	0.58
1:G:2870:GLU:OE2	1:G:2939:ARG:NE	2.35	0.58
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.68	0.58
1:A:830:ARG:HD3	1:A:1616:GLU:OE2	2.02	0.58
1:A:1257:VAL:HG12	1:A:1277:TRP:CH2	2.38	0.58
1:C:617:ASN:O	1:C:621:ILE:HG12	2.03	0.58
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.36	0.58
1:C:4708:THR:HG22	1:C:4710:SER:N	2.18	0.58
1:E:636:ASN:OD1	1:E:637:LEU:N	2.36	0.58
1:G:617:ASN:O	1:G:621:ILE:HG12	2.02	0.58
1:G:636:ASN:OD1	1:G:637:LEU:N	2.36	0.58
1:G:1716:ILE:O	1:G:1721:GLU:N	2.36	0.58
1:A:1159:THR:HG23	1:A:1180:ARG:HG2	1.86	0.58
1:A:3885:PHE:CE1	1:A:3919:THR:HG23	2.36	0.58
1:C:636:ASN:OD1	1:C:637:LEU:N	2.37	0.58
1:E:3709:ALA:HB2	1:E:3782:MET:SD	2.42	0.58
1:E:4708:THR:HG23	1:E:4772:ASP:OD2	2.04	0.58
1:G:1455:PRO:HA	1:G:1549:PHE:CE2	2.37	0.58
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.84	0.58
1:A:3937:TYR:O	1:A:4002:LYS:NZ	2.36	0.58
1:E:4185:GLY:O	1:E:4187:SER:N	2.34	0.58
1:G:410:LEU:HD21	1:G:441:VAL:HA	1.86	0.58
1:G:533:ASN:HB3	1:G:536:ASN:HD22	1.68	0.58
1:A:233:ILE:O	1:A:257:ARG:NH2	2.37	0.58
1:A:410:LEU:HD21	1:A:441:VAL:HA	1.86	0.58
1:A:1220:GLN:NE2	1:C:3484:ALA:HB1	2.18	0.58
1:A:1808:ARG:HA	1:A:1848:LEU:HD21	1.85	0.58
1:A:3484:ALA:HB1	1:G:1220:GLN:NE2	2.18	0.58
1:C:410:LEU:HD21	1:C:441:VAL:HA	1.86	0.58
1:C:3927:GLN:HB3	1:C:3992:PHE:CE2	2.39	0.58
1:C:3937:TYR:O	1:C:4002:LYS:NZ	2.37	0.58
1:C:4856:PHE:O	1:C:4860:ARG:NE	2.32	0.58
1:E:533:ASN:HB3	1:E:536:ASN:HD22	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1109:LEU:HA	1:E:1120:LEU:HD13	1.84	0.58
1:E:1257:VAL:HG12	1:E:1277:TRP:CH2	2.38	0.58
1:G:4035:VAL:HG12	1:G:4036:VAL:H	1.69	0.58
1:A:768:PHE:HA	1:A:1474:VAL:HA	1.83	0.58
1:E:1206:GLN:O	1:E:1209:SER:OG	2.18	0.58
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.86	0.58
1:G:1159:THR:HG23	1:G:1180:ARG:HG2	1.86	0.58
1:G:1238:PHE:HE2	1:G:1612:PHE:HA	1.69	0.58
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.36	0.58
1:A:617:ASN:O	1:A:621:ILE:HG12	2.03	0.58
1:A:635:THR:HA	1:A:1639:LEU:HA	1.86	0.58
1:A:4035:VAL:HG12	1:A:4036:VAL:H	1.67	0.58
1:C:541:SER:HA	1:C:574:VAL:HG22	1.85	0.58
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.68	0.58
1:C:1238:PHE:HE2	1:C:1612:PHE:HA	1.69	0.58
1:E:617:ASN:O	1:E:621:ILE:HG12	2.03	0.58
1:E:1716:ILE:O	1:E:1721:GLU:N	2.37	0.58
1:E:4708:THR:HG22	1:E:4710:SER:N	2.18	0.58
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	1.84	0.58
1:C:831:ARG:HG3	1:C:840:VAL:HG21	1.86	0.58
1:C:1781:CYS:SG	2:D:46:PHE:CE1	2.97	0.58
1:C:4141:PHE:O	1:C:4145:VAL:HG23	2.04	0.58
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.68	0.58
1:E:1164:LEU:HG	1:E:1169:LEU:HD11	1.84	0.58
1:E:1236:THR:H	1:E:1612:PHE:HD1	1.52	0.58
1:G:4185:GLY:O	1:G:4187:SER:N	2.34	0.58
1:A:821:LEU:O	1:A:1626:TRP:NE1	2.37	0.58
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.37	0.58
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	1.85	0.58
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	1.85	0.58
1:G:317:ARG:HH22	1:G:322:LYS:HA	1.66	0.58
1:G:2063:LEU:HD13	1:G:3661:TRP:CH2	2.39	0.58
1:E:677:ALA:HA	2:F:40:ARG:HB3	1.86	0.58
1:E:4794:TRP:HA	1:E:4797:VAL:HG12	1.86	0.58
1:G:317:ARG:NH2	1:G:321:GLU:O	2.36	0.58
1:G:3767:GLN:OE1	1:G:3809:ASN:ND2	2.36	0.58
1:C:635:THR:HA	1:C:1639:LEU:HA	1.86	0.57
1:E:635:THR:HA	1:E:1639:LEU:HA	1.86	0.57
1:E:1455:PRO:HA	1:E:1549:PHE:CE2	2.38	0.57
1:G:1164:LEU:HG	1:G:1169:LEU:HD11	1.85	0.57
1:A:4708:THR:HG23	1:A:4772:ASP:OD2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:233:ILE:O	1:C:257:ARG:NH2	2.38	0.57
1:A:677:ALA:HA	2:B:40:ARG:HB3	1.86	0.57
1:A:1716:ILE:O	1:A:1721:GLU:N	2.37	0.57
1:C:2870:GLU:OE2	1:C:2939:ARG:NE	2.38	0.57
1:E:76:ARG:CZ	1:G:3936:TYR:HA	2.34	0.57
1:E:1159:THR:HG23	1:E:1180:ARG:HG2	1.86	0.57
1:G:831:ARG:HG3	1:G:840:VAL:HG21	1.86	0.57
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.39	0.57
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.04	0.57
1:A:831:ARG:HG3	1:A:840:VAL:HG21	1.87	0.57
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.86	0.57
1:C:677:ALA:HA	2:D:40:ARG:HB3	1.86	0.57
1:C:1612:PHE:O	1:C:1613:LEU:HB2	2.05	0.57
1:C:2161:GLN:O	1:C:2164:SER:OG	2.16	0.57
1:C:3992:PHE:O	1:C:3996:PHE:N	2.30	0.57
1:E:233:ILE:O	1:E:257:ARG:NH2	2.37	0.57
1:E:4917:ASP:OD2	1:G:4888:TYR:CE1	2.57	0.57
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.86	0.57
1:G:247:TYR:HE2	1:G:388:LEU:HD21	1.70	0.57
1:G:4554:TYR:HA	1:G:4557:ARG:NH1	2.18	0.57
1:G:4708:THR:HG22	1:G:4710:SER:N	2.19	0.57
1:A:247:TYR:HE2	1:A:388:LEU:HD21	1.69	0.57
1:A:4708:THR:HG22	1:A:4710:SER:N	2.17	0.57
1:A:4922:PHE:HA	1:A:4926:VAL:HB	1.87	0.57
2:B:7:ILE:HD11	2:B:73:LYS:HB2	1.86	0.57
1:E:410:LEU:HD21	1:E:441:VAL:HA	1.86	0.57
1:E:541:SER:HA	1:E:574:VAL:HG22	1.86	0.57
1:E:821:LEU:O	1:E:1626:TRP:NE1	2.38	0.57
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.86	0.57
1:G:1236:THR:H	1:G:1612:PHE:HD1	1.53	0.57
1:G:3805:LEU:O	1:G:3807:GLY:N	2.37	0.57
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.04	0.57
1:A:533:ASN:HB3	1:A:536:ASN:HD22	1.68	0.57
1:A:1238:PHE:HE2	1:A:1612:PHE:HA	1.69	0.57
1:A:2149:VAL:O	1:A:2152:THR:OG1	2.16	0.57
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.86	0.57
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.37	0.57
1:C:4708:THR:HG23	1:C:4772:ASP:OD2	2.05	0.57
1:C:4922:PHE:HA	1:C:4926:VAL:HB	1.86	0.57
1:E:831:ARG:HG3	1:E:840:VAL:HG21	1.87	0.57
1:E:1781:CYS:SG	2:F:46:PHE:CE1	2.97	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.36	0.57
1:G:821:LEU:O	1:G:1626:TRP:NE1	2.37	0.57
1:G:3780:LEU:HD21	1:G:3820:LEU:HG	1.85	0.57
1:A:4027:LEU:HD22	1:A:4044:MET:HE1	1.87	0.57
1:A:4849:TYR:HA	1:A:4852:THR:HG22	1.86	0.57
1:C:247:TYR:HE2	1:C:388:LEU:HD21	1.69	0.57
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.86	0.57
1:C:4235:VAL:HG21	1:C:5019:TRP:CZ3	2.40	0.57
1:E:3885:PHE:CE1	1:E:3919:THR:HG23	2.37	0.57
1:E:3927:GLN:HB3	1:E:3992:PHE:CE2	2.39	0.57
1:E:4141:PHE:O	1:E:4145:VAL:HG23	2.04	0.57
1:E:4235:VAL:HG21	1:E:5019:TRP:CZ3	2.40	0.57
1:G:1083:VAL:O	1:G:1188:PHE:N	2.33	0.57
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.36	0.57
1:C:1737:PRO:HB2	1:C:1739:THR:HG23	1.87	0.57
1:C:4027:LEU:HD22	1:C:4044:MET:HE1	1.87	0.57
1:E:3992:PHE:O	1:E:3996:PHE:N	2.30	0.57
1:G:635:THR:HA	1:G:1639:LEU:HA	1.87	0.57
1:G:1769:THR:OG1	1:G:1956:GLU:OE2	2.23	0.57
1:A:4235:VAL:HG21	1:A:5019:TRP:CZ3	2.40	0.57
1:C:1159:THR:HG23	1:C:1180:ARG:HG2	1.86	0.57
1:C:1716:ILE:O	1:C:1721:GLU:N	2.37	0.57
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.87	0.57
1:E:1705:GLY:HA3	1:E:1836:PHE:CD2	2.40	0.57
1:A:234:SER:OG	1:A:242:ARG:HA	2.05	0.57
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.87	0.57
1:C:495:ASN:CA	1:C:553:ARG:HH12	2.18	0.57
1:C:1164:LEU:HG	1:C:1169:LEU:HD11	1.85	0.57
1:G:541:SER:HA	1:G:574:VAL:HG22	1.86	0.57
1:G:825:PRO:HD3	1:G:1619:ARG:NH1	2.20	0.57
1:G:4032:GLU:O	1:G:5006:GLN:NE2	2.38	0.57
1:A:541:SER:HA	1:A:574:VAL:HG22	1.87	0.56
1:A:1737:PRO:HB2	1:A:1739:THR:HG23	1.87	0.56
1:A:4240:ASP:OD1	1:A:4675:LYS:NZ	2.38	0.56
1:A:4914:VAL:HG13	1:C:4888:TYR:HD1	1.69	0.56
1:A:4917:ASP:OD2	1:C:4888:TYR:CE1	2.58	0.56
1:C:1236:THR:H	1:C:1612:PHE:HD1	1.53	0.56
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.19	0.56
1:G:233:ILE:O	1:G:257:ARG:NH2	2.38	0.56
1:G:750:LEU:O	1:G:752:VAL:N	2.38	0.56
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.17	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:455:PRO:HB3	1:A:467:LYS:HD2	1.87	0.56
1:A:495:ASN:CA	1:A:553:ARG:HH12	2.19	0.56
1:A:1164:LEU:HG	1:A:1169:LEU:HD11	1.85	0.56
1:C:215:THR:HG22	1:C:273:HIS:HD2	1.70	0.56
1:C:234:SER:OG	1:C:242:ARG:HA	2.05	0.56
1:C:2301:TYR:HB3	1:C:2331:TYR:CE2	2.41	0.56
1:C:4027:LEU:HD22	1:C:4044:MET:CE	2.35	0.56
1:E:3937:TYR:O	1:E:4002:LYS:NZ	2.36	0.56
1:G:4059:LEU:HD11	1:G:4166:LEU:HD23	1.87	0.56
1:A:530:ILE:HG23	1:A:537:CYS:SG	2.45	0.56
1:A:1236:THR:H	1:A:1612:PHE:HD1	1.52	0.56
1:A:1781:CYS:SG	2:B:46:PHE:CE1	2.97	0.56
1:A:3927:GLN:HB3	1:A:3992:PHE:CE2	2.39	0.56
1:A:4027:LEU:HD22	1:A:4044:MET:CE	2.36	0.56
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	1.86	0.56
1:A:4839:MET:C	1:C:4823:LEU:HD21	2.26	0.56
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.05	0.56
1:C:3835:LEU:HD11	1:C:3884:LEU:CD1	2.35	0.56
1:C:3885:PHE:CE1	1:C:3919:THR:HG23	2.37	0.56
1:C:4794:TRP:HA	1:C:4797:VAL:HG12	1.86	0.56
1:C:4839:MET:C	1:E:4823:LEU:HD21	2.25	0.56
1:E:825:PRO:HD3	1:E:1619:ARG:NH1	2.20	0.56
1:E:1238:PHE:HE2	1:E:1612:PHE:HA	1.69	0.56
1:G:1781:CYS:SG	2:H:46:PHE:CE1	2.98	0.56
1:G:2296:GLU:HA	1:G:2299:VAL:HG22	1.87	0.56
1:G:2301:TYR:HB3	1:G:2331:TYR:CE2	2.40	0.56
1:G:3937:TYR:O	1:G:4002:LYS:NZ	2.37	0.56
1:A:2125:HIS:NE2	1:A:3724:ALA:HB1	2.21	0.56
1:A:2499:LYS:HD2	1:A:2553:TYR:CE1	2.41	0.56
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	1.87	0.56
1:E:247:TYR:HE2	1:E:388:LEU:HD21	1.70	0.56
1:E:1612:PHE:O	1:E:1613:LEU:HB2	2.05	0.56
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.05	0.56
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.36	0.56
1:G:4680:LYS:HD3	1:G:4686:LEU:HD21	1.87	0.56
1:A:221:ARG:NE	1:A:253:CYS:O	2.39	0.56
1:A:750:LEU:O	1:A:752:VAL:N	2.38	0.56
1:E:234:SER:OG	1:E:242:ARG:HA	2.05	0.56
1:E:1131:ARG:NH2	1:E:1137:GLU:OE1	2.39	0.56
1:E:2301:TYR:HB3	1:E:2331:TYR:CE2	2.40	0.56
1:E:4934:GLY:CA	1:G:4937:ILE:HD12	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:530:ILE:HG23	1:G:537:CYS:SG	2.45	0.56
1:G:674:PHE:CB	2:H:40:ARG:NH1	2.68	0.56
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.86	0.56
1:A:3949:ARG:O	1:A:3952:SER:OG	2.20	0.56
1:C:692:TYR:CE1	1:C:711:LEU:HD21	2.41	0.56
1:C:1705:GLY:HA3	1:C:1836:PHE:CD2	2.41	0.56
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.86	0.56
1:E:495:ASN:ND2	1:E:550:LYS:HD2	2.21	0.56
1:E:4087:LEU:HG	1:E:4122:MET:HA	1.88	0.56
1:E:4172:GLU:HA	1:E:4175:ARG:NH1	2.20	0.56
1:G:3105:LYS:O	1:G:3109:ASN:N	2.39	0.56
1:A:495:ASN:ND2	1:A:550:LYS:HD2	2.21	0.56
1:A:3995:VAL:O	1:A:3999:MET:HB2	2.05	0.56
1:E:4240:ASP:OD1	1:E:4675:LYS:NZ	2.39	0.56
1:A:825:PRO:HD3	1:A:1619:ARG:NH1	2.20	0.56
1:C:732:SER:HB3	1:C:764:VAL:HG13	1.88	0.56
1:C:984:LEU:O	1:C:988:LEU:HG	2.06	0.56
1:C:1131:ARG:NH2	1:C:1137:GLU:OE1	2.39	0.56
1:C:2149:VAL:O	1:C:2152:THR:OG1	2.16	0.56
1:C:2499:LYS:HD2	1:C:2553:TYR:CE1	2.41	0.56
1:C:4849:TYR:HA	1:C:4852:THR:HG22	1.86	0.56
2:D:7:ILE:HD11	2:D:73:LYS:HB2	1.86	0.56
1:E:530:ILE:HG23	1:E:537:CYS:SG	2.45	0.56
1:E:1825:HIS:ND1	1:E:1825:HIS:O	2.39	0.56
1:E:3829:PHE:HD2	1:E:3915:ILE:HD11	1.71	0.56
1:G:495:ASN:CA	1:G:553:ARG:HH12	2.18	0.56
1:G:638:ILE:HG23	1:G:678:GLN:HE22	1.70	0.56
1:G:984:LEU:O	1:G:988:LEU:HG	2.06	0.56
1:A:2301:TYR:HB3	1:A:2331:TYR:CE2	2.41	0.56
1:A:4172:GLU:HA	1:A:4175:ARG:NH1	2.20	0.56
1:A:4682:GLU:OE2	1:A:4723:LYS:NZ	2.39	0.56
1:A:4794:TRP:HA	1:A:4797:VAL:HG12	1.86	0.56
1:C:28:VAL:HG12	1:C:29:LEU:HG	1.88	0.56
1:C:221:ARG:NE	1:C:253:CYS:O	2.38	0.56
1:C:287:THR:HB	1:C:289:ARG:NH1	2.21	0.56
1:C:455:PRO:HB3	1:C:467:LYS:HD2	1.88	0.56
1:C:530:ILE:HG23	1:C:537:CYS:SG	2.45	0.56
1:C:2765:LYS:NZ	1:C:2769:ASP:OD2	2.37	0.56
1:C:4087:LEU:HG	1:C:4122:MET:HA	1.88	0.56
1:C:4172:GLU:HA	1:C:4175:ARG:NH1	2.20	0.56
1:E:215:THR:HG22	1:E:273:HIS:HD2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:745:SER:HB3	1:E:758:ARG:HB2	1.88	0.56
1:E:1737:PRO:HB2	1:E:1739:THR:HG23	1.88	0.56
1:E:2125:HIS:NE2	1:E:3724:ALA:HB1	2.20	0.56
1:G:580:GLU:HA	1:G:620:LEU:HD11	1.87	0.56
1:G:2123:LEU:O	1:G:2127:GLN:HG2	2.06	0.56
1:G:3647:HIS:O	1:G:3651:ASN:ND2	2.39	0.56
1:G:3950:ASN:HA	1:G:3953:LYS:HD3	1.88	0.56
1:A:1131:ARG:NH2	1:A:1137:GLU:OE1	2.39	0.56
1:A:1612:PHE:O	1:A:1613:LEU:HB2	2.05	0.56
1:A:3980:LEU:HD21	1:A:3985:LEU:HD22	1.88	0.56
1:A:4141:PHE:O	1:A:4145:VAL:HG23	2.05	0.56
1:A:4909:TYR:O	1:A:4913:ARG:N	2.34	0.56
1:C:580:GLU:HA	1:C:620:LEU:HD11	1.87	0.56
1:C:2125:HIS:NE2	1:C:3724:ALA:HB1	2.21	0.56
1:E:28:VAL:HG12	1:E:29:LEU:HG	1.88	0.56
1:E:4580:TYR:CE1	1:E:4631:PHE:HB2	2.41	0.56
1:G:495:ASN:ND2	1:G:550:LYS:HD2	2.21	0.56
1:G:745:SER:HB3	1:G:758:ARG:HB2	1.88	0.56
1:G:2765:LYS:NZ	1:G:2769:ASP:OD2	2.36	0.56
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.06	0.55
1:C:1089:TYR:HB2	1:C:1223:PHE:HB3	1.88	0.55
1:C:4914:VAL:HG13	1:E:4888:TYR:HD1	1.69	0.55
1:E:287:THR:HB	1:E:289:ARG:NH1	2.22	0.55
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.12	0.55
1:G:287:THR:HB	1:G:289:ARG:NH1	2.21	0.55
1:G:1101:ARG:H	1:G:1193:SER:HB3	1.71	0.55
1:A:215:THR:HG22	1:A:273:HIS:HD2	1.70	0.55
1:A:2296:GLU:HA	1:A:2299:VAL:HG22	1.88	0.55
1:A:4580:TYR:CE1	1:A:4631:PHE:HB2	2.41	0.55
1:C:737:LEU:HD13	2:D:8:SER:HB3	1.88	0.55
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.07	0.55
1:E:1089:TYR:HB2	1:E:1223:PHE:HB3	1.88	0.55
1:E:1101:ARG:H	1:E:1193:SER:HB3	1.71	0.55
1:E:3995:VAL:O	1:E:3999:MET:HB2	2.05	0.55
1:E:4839:MET:HG3	1:G:4822:THR:CG2	2.33	0.55
1:G:215:THR:HG22	1:G:273:HIS:HD2	1.70	0.55
1:G:1131:ARG:NH2	1:G:1137:GLU:OE1	2.39	0.55
1:G:4236:SER:O	1:G:4675:LYS:NZ	2.39	0.55
1:A:692:TYR:CE1	1:A:711:LEU:HD21	2.42	0.55
1:A:842:PRO:HD2	1:A:1195:GLY:O	2.06	0.55
1:C:2112:GLN:O	1:C:2113:SER:OG	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4849:TYR:OH	1:E:4574:ASN:HB3	2.05	0.55
1:E:221:ARG:NE	1:E:253:CYS:O	2.39	0.55
1:E:1099:GLU:OE1	1:E:1127:HIS:NE2	2.40	0.55
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	1.87	0.55
1:G:244:LEU:HD22	1:G:375:LYS:HZ1	1.71	0.55
1:G:842:PRO:HD2	1:G:1195:GLY:O	2.06	0.55
1:G:1089:TYR:HB2	1:G:1223:PHE:HB3	1.88	0.55
1:G:1433:TYR:HD2	1:G:1519:LEU:HD23	1.72	0.55
1:G:2112:GLN:O	1:G:2113:SER:OG	2.25	0.55
1:G:2499:LYS:HD2	1:G:2553:TYR:CE1	2.41	0.55
1:A:3813:GLN:OE1	1:A:3896:ASN:ND2	2.39	0.55
1:C:750:LEU:O	1:C:752:VAL:N	2.39	0.55
1:C:3995:VAL:O	1:C:3999:MET:HB2	2.05	0.55
1:C:4240:ASP:OD1	1:C:4675:LYS:NZ	2.38	0.55
1:E:2870:GLU:OE2	1:E:2939:ARG:NE	2.38	0.55
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.87	0.55
1:G:234:SER:OG	1:G:242:ARG:HA	2.05	0.55
1:G:1737:PRO:HB2	1:G:1739:THR:HG23	1.89	0.55
1:G:1806:ALA:O	1:G:1810:LYS:HG3	2.06	0.55
1:G:4686:LEU:HD13	1:G:4692:PRO:HD3	1.89	0.55
1:A:580:GLU:HA	1:A:620:LEU:HD11	1.87	0.55
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.06	0.55
1:C:495:ASN:ND2	1:C:550:LYS:HD2	2.21	0.55
1:C:825:PRO:HD3	1:C:1619:ARG:NH1	2.20	0.55
1:C:1099:GLU:OE1	1:C:1127:HIS:NE2	2.39	0.55
1:C:1825:HIS:ND1	1:C:1825:HIS:O	2.39	0.55
1:E:580:GLU:HA	1:E:620:LEU:HD11	1.88	0.55
1:E:750:LEU:O	1:E:752:VAL:N	2.38	0.55
1:E:828:GLU:HG3	1:E:830:ARG:H	1.72	0.55
1:E:1433:TYR:HD2	1:E:1519:LEU:HD23	1.72	0.55
1:E:3835:LEU:HD11	1:E:3884:LEU:CD1	2.36	0.55
1:E:3916:ILE:HG23	1:E:3980:LEU:HD12	1.89	0.55
1:E:4027:LEU:HD22	1:E:4044:MET:CE	2.35	0.55
2:F:7:ILE:HD11	2:F:73:LYS:HB2	1.86	0.55
1:G:1033:ARG:HA	1:G:1036:ARG:HG2	1.89	0.55
1:G:4879:MET:HA	1:G:4882:CYS:HB3	1.88	0.55
1:A:1705:GLY:HA3	1:A:1836:PHE:CD2	2.41	0.55
1:A:4087:LEU:HG	1:A:4122:MET:HA	1.88	0.55
1:C:4562:LEU:HD21	1:C:4656:LEU:HD12	1.89	0.55
1:E:4708:THR:O	1:E:4721:LYS:NZ	2.39	0.55
1:A:828:GLU:HG3	1:A:830:ARG:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:984:LEU:O	1:A:988:LEU:HG	2.06	0.55
1:A:1101:ARG:H	1:A:1193:SER:HB3	1.71	0.55
1:C:842:PRO:HD2	1:C:1195:GLY:O	2.06	0.55
1:C:4682:GLU:OE2	1:C:4723:LYS:NZ	2.39	0.55
1:E:737:LEU:HD13	2:F:8:SER:HB3	1.88	0.55
1:G:221:ARG:NE	1:G:253:CYS:O	2.39	0.55
1:G:455:PRO:HB3	1:G:467:LYS:HD2	1.88	0.55
1:G:3709:ALA:HB2	1:G:3782:MET:SD	2.47	0.55
1:G:4708:THR:HG23	1:G:4772:ASP:OD2	2.06	0.55
1:G:4712:PRO:HG2	1:G:4718:LYS:HD2	1.88	0.55
1:A:28:VAL:HG12	1:A:29:LEU:HG	1.88	0.55
1:A:1099:GLU:OE1	1:A:1127:HIS:NE2	2.39	0.55
1:A:4562:LEU:HD21	1:A:4656:LEU:HD12	1.89	0.55
1:C:4003:LEU:HB2	1:C:4013:LEU:HD13	1.89	0.55
1:E:4570:ALA:O	1:E:4574:ASN:ND2	2.32	0.55
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.88	0.55
1:G:4235:VAL:HG21	1:G:5019:TRP:CZ3	2.42	0.55
1:A:732:SER:HB3	1:A:764:VAL:HG13	1.89	0.55
1:A:2870:GLU:OE2	1:A:2939:ARG:NE	2.37	0.55
1:A:4708:THR:O	1:A:4721:LYS:NZ	2.39	0.55
1:C:3829:PHE:HD2	1:C:3915:ILE:HD11	1.71	0.55
1:C:4570:ALA:O	1:C:4574:ASN:ND2	2.32	0.55
1:E:162:LYS:NZ	1:G:3987:ASP:OD1	2.37	0.55
1:E:567:VAL:O	1:E:571:SER:OG	2.21	0.55
1:E:842:PRO:HD2	1:E:1195:GLY:O	2.07	0.55
1:E:1033:ARG:HA	1:E:1036:ARG:HG2	1.89	0.55
1:E:2499:LYS:HD2	1:E:2553:TYR:CE1	2.41	0.55
1:E:3938:SER:HA	1:E:4002:LYS:HZ2	1.72	0.55
1:E:3980:LEU:HD21	1:E:3985:LEU:HD22	1.88	0.55
1:E:4003:LEU:HB2	1:E:4013:LEU:HD13	1.89	0.55
1:G:28:VAL:HG12	1:G:29:LEU:HG	1.88	0.55
1:G:561:LEU:HD11	1:G:599:VAL:HG22	1.89	0.55
1:G:692:TYR:CE1	1:G:711:LEU:HD21	2.41	0.55
1:G:828:GLU:HG3	1:G:830:ARG:H	1.72	0.55
1:G:2136:ARG:NH1	1:G:3720:TYR:HE2	2.04	0.55
1:G:3891:LEU:HD23	1:G:3899:PHE:CZ	2.42	0.55
1:A:287:THR:HB	1:A:289:ARG:NH1	2.21	0.55
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.42	0.55
1:A:1456:ASP:O	1:A:1457:TYR:HB2	2.07	0.55
1:A:1806:ALA:O	1:A:1810:LYS:HG3	2.06	0.55
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3780:LEU:HD21	1:A:3820:LEU:HG	1.89	0.55
1:C:244:LEU:HD22	1:C:375:LYS:HZ1	1.72	0.55
1:C:1101:ARG:H	1:C:1193:SER:HB3	1.71	0.55
1:E:495:ASN:CA	1:E:553:ARG:HH12	2.18	0.55
1:E:4849:TYR:HA	1:E:4852:THR:HG22	1.89	0.55
1:G:1612:PHE:O	1:G:1613:LEU:HB2	2.05	0.55
1:A:1089:TYR:HB2	1:A:1223:PHE:HB3	1.88	0.54
1:A:1433:TYR:HD2	1:A:1519:LEU:HD23	1.72	0.54
1:A:1585:LYS:NZ	1:A:1596:GLU:HB2	2.23	0.54
1:A:1825:HIS:ND1	1:A:1825:HIS:O	2.39	0.54
1:C:828:GLU:HG3	1:C:830:ARG:H	1.72	0.54
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.72	0.54
1:C:4708:THR:O	1:C:4721:LYS:NZ	2.40	0.54
1:E:1806:ALA:O	1:E:1810:LYS:HG3	2.06	0.54
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.72	0.54
1:E:4720:VAL:O	1:E:4724:VAL:HG23	2.06	0.54
1:G:706:GLY:N	1:G:711:LEU:HD13	2.21	0.54
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.43	0.54
1:G:3923:LEU:HD12	1:G:3961:VAL:HG12	1.89	0.54
1:A:1770:SER:OG	1:A:1771:LEU:N	2.40	0.54
1:A:3829:PHE:HD2	1:A:3915:ILE:HD11	1.71	0.54
1:C:441:VAL:O	1:C:444:SER:OG	2.16	0.54
1:C:1585:LYS:NZ	1:C:1596:GLU:HB2	2.23	0.54
1:C:1770:SER:OG	1:C:1771:LEU:N	2.40	0.54
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.43	0.54
1:E:1238:PHE:CE2	1:E:1612:PHE:HA	2.42	0.54
1:E:3780:LEU:HD21	1:E:3820:LEU:HG	1.89	0.54
1:E:4682:GLU:OE2	1:E:4723:LYS:NZ	2.39	0.54
1:A:745:SER:HB3	1:A:758:ARG:HB2	1.88	0.54
1:A:2161:GLN:O	1:A:2164:SER:OG	2.16	0.54
1:A:3916:ILE:HG23	1:A:3980:LEU:HD12	1.89	0.54
1:C:1781:CYS:SG	2:D:46:PHE:HE1	2.30	0.54
1:C:3916:ILE:HG23	1:C:3980:LEU:HD12	1.89	0.54
1:C:4856:PHE:CE2	1:C:4860:ARG:NH1	2.76	0.54
1:E:2902:HIS:HB3	1:E:2905:LEU:HG	1.89	0.54
1:G:641:VAL:HG11	1:G:704:GLY:HA2	1.89	0.54
1:G:732:SER:HB3	1:G:764:VAL:HG13	1.88	0.54
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.72	0.54
1:G:3904:ARG:HD3	1:G:3976:ASN:HA	1.88	0.54
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.76	0.54
1:A:1033:ARG:HA	1:A:1036:ARG:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1235:THR:HG21	1:A:1702:HIS:CE1	2.43	0.54
1:A:1238:PHE:CE2	1:A:1612:PHE:HA	2.42	0.54
1:A:1781:CYS:SG	2:B:46:PHE:HE1	2.30	0.54
1:A:1850:VAL:HA	1:A:1945:TYR:CE1	2.43	0.54
1:A:2133:GLU:HA	1:A:2136:ARG:HE	1.72	0.54
1:C:1235:THR:HG21	1:C:1702:HIS:CE1	2.42	0.54
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.42	0.54
1:E:706:GLY:N	1:E:711:LEU:HD13	2.21	0.54
1:G:1825:HIS:ND1	1:G:1825:HIS:O	2.39	0.54
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.89	0.54
1:G:4056:GLU:HG3	1:G:4166:LEU:HD21	1.88	0.54
2:H:4:VAL:HG22	2:H:74:LEU:HG	1.88	0.54
1:C:641:VAL:HG11	1:C:704:GLY:HA2	1.89	0.54
1:C:1033:ARG:HA	1:C:1036:ARG:HG2	1.89	0.54
1:C:1806:ALA:O	1:C:1810:LYS:HG3	2.06	0.54
1:C:3780:LEU:HD21	1:C:3820:LEU:HG	1.89	0.54
1:C:4103:PHE:HB2	1:C:4108:ILE:HD11	1.89	0.54
1:C:4917:ASP:OD2	1:E:4888:TYR:CE1	2.60	0.54
1:E:641:VAL:HG11	1:E:704:GLY:HA2	1.90	0.54
1:E:1781:CYS:SG	2:F:46:PHE:HE1	2.30	0.54
1:E:4027:LEU:HD22	1:E:4044:MET:HE1	1.89	0.54
1:E:4562:LEU:HD21	1:E:4656:LEU:HD12	1.89	0.54
2:F:4:VAL:HG22	2:F:74:LEU:HG	1.89	0.54
2:F:37:ASP:OD1	2:F:38:SER:N	2.41	0.54
2:H:7:ILE:HD11	2:H:73:LYS:HB2	1.89	0.54
1:A:4003:LEU:HB2	1:A:4013:LEU:HD13	1.90	0.54
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.23	0.54
2:D:2:VAL:HG23	2:D:76:ILE:HA	1.90	0.54
2:D:37:ASP:OD1	2:D:38:SER:N	2.41	0.54
1:E:984:LEU:O	1:E:988:LEU:HG	2.06	0.54
1:G:287:THR:HB	1:G:289:ARG:HH11	1.73	0.54
1:G:1099:GLU:OE1	1:G:1127:HIS:NE2	2.39	0.54
1:G:1850:VAL:HA	1:G:1945:TYR:CE1	2.43	0.54
1:C:745:SER:HB3	1:C:758:ARG:HB2	1.88	0.54
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.76	0.54
1:E:111:HIS:HD2	1:E:114:SER:H	1.56	0.54
1:E:455:PRO:HB3	1:E:467:LYS:HD2	1.89	0.54
1:G:37:LEU:HD11	1:G:47:CYS:HB3	1.90	0.54
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.43	0.54
1:G:1705:GLY:HA3	1:G:1836:PHE:CD2	2.43	0.54
1:G:1808:ARG:HB2	1:G:1854:PHE:CE1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5027:CYS:SG	1:A:5030:LYS:HG2	2.48	0.54
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.89	0.54
1:E:692:TYR:CE1	1:E:711:LEU:HD21	2.41	0.54
1:E:1808:ARG:HB2	1:E:1854:PHE:CE1	2.43	0.54
1:E:2112:GLN:O	1:E:2113:SER:OG	2.24	0.54
1:G:2355:ARG:HA	1:G:2358:ILE:HD12	1.90	0.54
1:G:5027:CYS:SG	1:G:5030:LYS:HG2	2.48	0.54
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.88	0.54
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.76	0.54
2:B:2:VAL:HG23	2:B:76:ILE:HA	1.90	0.54
1:C:2296:GLU:HA	1:C:2299:VAL:HG22	1.88	0.54
1:C:2355:ARG:HA	1:C:2358:ILE:HD12	1.90	0.54
1:E:561:LEU:HD11	1:E:599:VAL:HG22	1.90	0.54
1:E:732:SER:HB3	1:E:764:VAL:HG13	1.90	0.54
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.89	0.54
1:E:1235:THR:HG21	1:E:1702:HIS:CE1	2.43	0.54
1:E:2296:GLU:HA	1:E:2299:VAL:HG22	1.88	0.54
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.23	0.54
1:E:4193:ILE:HG22	1:E:5006:GLN:OE1	2.08	0.54
1:G:1291:LEU:HB3	1:G:1550:PRO:HG2	1.89	0.54
1:G:4980:LEU:HA	1:G:4984:ASN:HB3	1.90	0.54
1:A:111:HIS:HD2	1:A:114:SER:H	1.56	0.54
1:C:561:LEU:HD11	1:C:599:VAL:HG22	1.90	0.54
1:C:790:ARG:HH21	1:C:1625:GLY:HA3	1.73	0.54
1:C:1206:GLN:O	1:C:1209:SER:OG	2.18	0.54
1:C:1291:LEU:HB3	1:C:1550:PRO:HG2	1.90	0.54
1:C:1433:TYR:HD2	1:C:1519:LEU:HD23	1.72	0.54
1:C:2063:LEU:HD13	1:C:3661:TRP:CH2	2.43	0.54
1:C:5027:CYS:SG	1:C:5030:LYS:HG2	2.48	0.54
1:E:293:LEU:HD13	1:E:378:LEU:HD12	1.90	0.54
1:G:293:LEU:HD13	1:G:378:LEU:HD12	1.90	0.54
1:A:1245:PHE:CZ	1:A:1646:ARG:NH1	2.77	0.53
1:C:402:ARG:NH1	1:C:405:HIS:CD2	2.76	0.53
1:C:3813:GLN:OE1	1:C:3896:ASN:ND2	2.41	0.53
1:C:4193:ILE:HG22	1:C:5006:GLN:OE1	2.08	0.53
1:E:1585:LYS:NZ	1:E:1596:GLU:HB2	2.23	0.53
1:E:2139:PRO:HG3	1:E:3658:LYS:NZ	2.23	0.53
1:E:3813:GLN:OE1	1:E:3896:ASN:ND2	2.41	0.53
1:E:3996:PHE:CZ	1:E:4019:LEU:HD22	2.41	0.53
1:G:111:HIS:HD2	1:G:114:SER:H	1.56	0.53
1:G:1235:THR:HG21	1:G:1702:HIS:CE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3839:CYS:SG	1:G:3881:THR:HB	2.48	0.53
1:G:3969:ILE:HG23	1:G:3977:GLN:HG2	1.88	0.53
1:A:737:LEU:HD13	2:B:8:SER:HB3	1.89	0.53
1:A:1808:ARG:HB2	1:A:1854:PHE:CE1	2.43	0.53
1:A:4103:PHE:HB2	1:A:4108:ILE:HD11	1.89	0.53
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.43	0.53
1:E:790:ARG:HH21	1:E:1625:GLY:HA3	1.74	0.53
1:E:4103:PHE:HB2	1:E:4108:ILE:HD11	1.90	0.53
1:E:5027:CYS:SG	1:E:5030:LYS:HG2	2.48	0.53
1:C:1238:PHE:CE2	1:C:1612:PHE:HA	2.42	0.53
1:C:1653:LEU:HD23	1:C:1707:LEU:HD11	1.90	0.53
1:E:2149:VAL:O	1:E:2152:THR:OG1	2.16	0.53
1:A:3817:LEU:HD11	1:A:3821:LYS:HZ1	1.72	0.53
1:A:4843:LEU:CD1	1:C:4827:LEU:HD11	2.38	0.53
1:C:1245:PHE:CZ	1:C:1646:ARG:NH1	2.77	0.53
1:C:1456:ASP:O	1:C:1457:TYR:HB2	2.08	0.53
1:C:1781:CYS:HG	2:D:46:PHE:HE1	1.50	0.53
1:C:1808:ARG:HB2	1:C:1854:PHE:CE1	2.43	0.53
1:E:402:ARG:NH1	1:E:405:HIS:CD2	2.77	0.53
1:E:2063:LEU:HD13	1:E:3661:TRP:CH2	2.43	0.53
1:E:4980:LEU:HA	1:E:4984:ASN:HB3	1.91	0.53
1:G:402:ARG:NH1	1:G:405:HIS:CD2	2.76	0.53
1:G:768:PHE:HB3	1:G:1474:VAL:HG22	1.90	0.53
1:A:641:VAL:HG11	1:A:704:GLY:HA2	1.89	0.53
1:A:768:PHE:HB3	1:A:1474:VAL:HG22	1.90	0.53
1:A:2063:LEU:HD13	1:A:3661:TRP:CH2	2.43	0.53
1:C:1850:VAL:HA	1:C:1945:TYR:CE1	2.43	0.53
1:C:4933:GLN:O	1:C:4937:ILE:HG12	2.08	0.53
1:E:2355:ARG:HA	1:E:2358:ILE:HD12	1.90	0.53
1:G:1238:PHE:CE2	1:G:1612:PHE:HA	2.43	0.53
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.91	0.53
1:A:561:LEU:HD11	1:A:599:VAL:HG22	1.90	0.53
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.19	0.53
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.43	0.53
1:C:1143:TRP:HB2	1:C:1147:ASP:HB2	1.90	0.53
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.12	0.53
1:C:4980:LEU:HA	1:C:4984:ASN:HB3	1.91	0.53
1:E:4839:MET:C	1:G:4823:LEU:HD21	2.29	0.53
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.21	0.53
1:G:441:VAL:O	1:G:444:SER:OG	2.16	0.53
1:G:3927:GLN:HB3	1:G:3992:PHE:CE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.08	0.53
2:H:88:PRO:O	2:H:90:ILE:HD12	2.09	0.53
1:A:3835:LEU:HD11	1:A:3884:LEU:CD1	2.36	0.53
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	1.90	0.53
2:B:4:VAL:HG22	2:B:74:LEU:HG	1.89	0.53
1:C:2902:HIS:HB3	1:C:2905:LEU:HG	1.89	0.53
1:E:1850:VAL:HA	1:E:1945:TYR:CE1	2.43	0.53
1:E:1972:ASN:O	1:E:1975:SER:OG	2.26	0.53
1:E:2551:ASN:O	1:E:2554:LEU:HG	2.09	0.53
1:E:3817:LEU:HD11	1:E:3821:LYS:HZ2	1.74	0.53
1:G:1143:TRP:HB2	1:G:1147:ASP:HB2	1.90	0.53
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.08	0.53
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.89	0.53
1:A:287:THR:HB	1:A:289:ARG:HH11	1.73	0.53
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.43	0.53
1:A:2876:GLU:OE2	1:A:2916:LYS:HD3	2.09	0.53
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.91	0.53
1:C:4702:ASP:HA	1:C:4778:TRP:HE1	1.74	0.53
2:D:88:PRO:O	2:D:90:ILE:HD12	2.09	0.53
1:E:217:GLY:O	1:E:261:ARG:NH1	2.42	0.53
1:E:1143:TRP:HB2	1:E:1147:ASP:HB2	1.90	0.53
1:E:2765:LYS:NZ	1:E:2769:ASP:OD2	2.37	0.53
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	1.90	0.53
1:G:1245:PHE:CZ	1:G:1646:ARG:NH1	2.77	0.53
1:G:4118:ASP:HB2	1:G:4122:MET:HB2	1.89	0.53
1:A:1691:GLN:HE22	1:A:1802:ILE:HA	1.74	0.53
1:C:293:LEU:HD13	1:C:378:LEU:HD12	1.90	0.53
1:C:842:PRO:HA	1:C:1073:ARG:HH12	1.74	0.53
1:C:2341:VAL:HG11	1:C:2346:VAL:HG13	1.91	0.53
1:C:4185:GLY:O	1:C:4187:SER:N	2.36	0.53
2:D:4:VAL:HG22	2:D:74:LEU:HG	1.90	0.53
1:E:639:ASN:OD1	1:E:640:TYR:N	2.42	0.53
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.18	0.53
1:E:3878:ASP:O	1:E:3881:THR:HG22	2.09	0.53
1:G:790:ARG:HH21	1:G:1625:GLY:HA3	1.74	0.53
1:G:1737:PRO:HB3	1:G:2149:VAL:HG11	1.91	0.53
1:G:3786:CYS:O	1:G:3789:GLU:HG2	2.08	0.53
2:H:2:VAL:HG23	2:H:76:ILE:HA	1.90	0.53
1:A:706:GLY:N	1:A:711:LEU:HD13	2.21	0.53
1:A:1291:LEU:HB3	1:A:1550:PRO:HG2	1.90	0.53
1:A:2341:VAL:HG11	1:A:2346:VAL:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2902:HIS:HB3	1:A:2905:LEU:HG	1.90	0.53
1:C:768:PHE:HB3	1:C:1474:VAL:HG22	1.90	0.53
1:E:287:THR:HB	1:E:289:ARG:HH11	1.74	0.53
1:E:1291:LEU:HB3	1:E:1550:PRO:HG2	1.89	0.53
2:F:2:VAL:HG23	2:F:76:ILE:HA	1.89	0.53
1:G:833:GLY:HA3	1:G:838:HIS:CD2	2.44	0.53
1:A:639:ASN:OD1	1:A:640:TYR:N	2.42	0.52
1:A:833:GLY:HA3	1:A:838:HIS:CD2	2.45	0.52
1:A:1737:PRO:HB3	1:A:2149:VAL:HG11	1.91	0.52
1:A:2355:ARG:HA	1:A:2358:ILE:HD12	1.91	0.52
1:A:3795:SER:O	1:A:3799:LYS:HG2	2.09	0.52
1:A:4702:ASP:HA	1:A:4778:TRP:HE1	1.74	0.52
1:A:4980:LEU:HA	1:A:4984:ASN:HB3	1.91	0.52
1:C:111:HIS:HD2	1:C:114:SER:H	1.56	0.52
1:C:3920:VAL:HG22	1:C:3965:LEU:HD21	1.90	0.52
1:E:1781:CYS:HG	2:F:46:PHE:HE1	1.51	0.52
1:E:4055:VAL:HG13	1:E:4058:ILE:HD11	1.91	0.52
1:E:4702:ASP:HA	1:E:4778:TRP:HE1	1.75	0.52
1:G:1770:SER:OG	1:G:1771:LEU:N	2.40	0.52
1:A:1143:TRP:HB2	1:A:1147:ASP:HB2	1.90	0.52
1:A:4815:ASP:O	1:A:4819:GLY:N	2.40	0.52
1:A:4849:TYR:OH	1:C:4574:ASN:HB3	2.08	0.52
2:B:88:PRO:O	2:B:90:ILE:HD12	2.10	0.52
1:C:1769:THR:OG1	1:C:1956:GLU:OE2	2.26	0.52
1:C:2551:ASN:O	1:C:2554:LEU:HG	2.09	0.52
1:C:2876:GLU:OE2	1:C:2916:LYS:HD3	2.09	0.52
1:C:3817:LEU:HD11	1:C:3821:LYS:HZ1	1.74	0.52
1:E:768:PHE:HB3	1:E:1474:VAL:HG22	1.90	0.52
1:E:1245:PHE:CZ	1:E:1646:ARG:NH1	2.77	0.52
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.91	0.52
1:G:2902:HIS:HB3	1:G:2905:LEU:HG	1.91	0.52
1:A:293:LEU:HD13	1:A:378:LEU:HD12	1.91	0.52
1:A:790:ARG:HH21	1:A:1625:GLY:HA3	1.73	0.52
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.91	0.52
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.23	0.52
1:A:4849:TYR:O	1:A:4852:THR:HG22	2.10	0.52
1:C:217:GLY:O	1:C:261:ARG:NH1	2.42	0.52
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.91	0.52
1:C:833:GLY:HA3	1:C:838:HIS:CD2	2.45	0.52
1:C:4655:PHE:O	1:C:4658:ILE:HG13	2.10	0.52
1:E:1584:ARG:HH11	1:E:1643:GLU:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.91	0.52
1:G:567:VAL:HG12	1:G:574:VAL:HG11	1.92	0.52
1:G:4909:TYR:O	1:G:4913:ARG:N	2.40	0.52
1:A:217:GLY:O	1:A:261:ARG:NH1	2.42	0.52
1:A:402:ARG:NH1	1:A:405:HIS:CD2	2.77	0.52
1:A:441:VAL:O	1:A:444:SER:OG	2.16	0.52
1:A:1769:THR:OG1	1:A:1956:GLU:OE2	2.25	0.52
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.10	0.52
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.92	0.52
1:E:37:LEU:HD11	1:E:47:CYS:HB3	1.91	0.52
1:G:664:PHE:CE2	1:G:779:PRO:HB3	2.45	0.52
1:G:1585:LYS:NZ	1:G:1596:GLU:HB2	2.24	0.52
1:G:3885:PHE:HE1	1:G:3919:THR:HG23	1.73	0.52
1:A:231:LEU:HD11	1:A:245:VAL:HG13	1.91	0.52
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.92	0.52
1:A:2551:ASN:O	1:A:2554:LEU:HG	2.09	0.52
1:A:4193:ILE:HG22	1:A:5006:GLN:OE1	2.09	0.52
1:A:4555:LEU:HD21	1:A:4656:LEU:O	2.10	0.52
1:A:4686:LEU:HD13	1:A:4692:PRO:HD3	1.91	0.52
1:A:4914:VAL:HG13	1:C:4888:TYR:CD1	2.45	0.52
1:A:4934:GLY:HA3	1:C:4937:ILE:HD13	1.88	0.52
1:C:223:PHE:HD1	1:C:230:CYS:HB3	1.75	0.52
1:C:706:GLY:N	1:C:711:LEU:HD13	2.21	0.52
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.92	0.52
1:C:1584:ARG:HH11	1:C:1643:GLU:HG3	1.75	0.52
1:C:3795:SER:O	1:C:3799:LYS:HG2	2.10	0.52
1:C:3878:ASP:O	1:C:3881:THR:HG22	2.09	0.52
1:C:4055:VAL:HG13	1:C:4058:ILE:HD11	1.92	0.52
1:C:4914:VAL:HG13	1:E:4888:TYR:CD1	2.45	0.52
1:E:567:VAL:HG12	1:E:574:VAL:HG11	1.91	0.52
1:E:664:PHE:CE2	1:E:779:PRO:HB3	2.45	0.52
1:E:2453:ILE:HA	1:E:2456:ILE:HD12	1.92	0.52
1:E:3920:VAL:HG22	1:E:3965:LEU:HD21	1.90	0.52
1:E:3963:ASN:HA	1:E:3966:THR:HG22	1.92	0.52
1:G:590:LEU:HB2	1:G:599:VAL:HG11	1.92	0.52
1:G:1687:SER:CB	2:H:90:ILE:HG12	2.40	0.52
1:G:1961:PHE:HZ	1:G:2063:LEU:HD23	1.74	0.52
1:G:2151:ASP:O	1:G:2154:SER:OG	2.19	0.52
1:G:4076:ALA:HB2	1:G:4100:GLN:HB3	1.91	0.52
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.09	0.52
1:A:1584:ARG:HH11	1:A:1643:GLU:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:287:THR:HB	1:C:289:ARG:HH11	1.73	0.52
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.91	0.52
1:C:613:ALA:HB1	1:C:618:GLN:HE22	1.75	0.52
1:C:3980:LEU:HD21	1:C:3985:LEU:HD22	1.91	0.52
1:C:4909:TYR:O	1:C:4913:ARG:N	2.34	0.52
1:E:3795:SER:O	1:E:3799:LYS:HG2	2.09	0.52
1:E:4914:VAL:O	1:E:4918:ILE:HG12	2.10	0.52
1:E:4917:ASP:OD2	1:G:4892:ARG:NE	2.43	0.52
1:G:635:THR:OG1	1:G:1693:GLN:NE2	2.42	0.52
1:G:4901:ILE:HG21	1:G:4913:ARG:HH21	1.75	0.52
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.91	0.52
1:A:448:LEU:HD12	1:A:525:LEU:HD11	1.92	0.52
1:A:3920:VAL:HG22	1:A:3965:LEU:HD21	1.90	0.52
2:B:37:ASP:OD1	2:B:38:SER:N	2.41	0.52
1:E:833:GLY:HA3	1:E:838:HIS:CD2	2.45	0.52
1:E:2876:GLU:OE2	1:E:2916:LYS:HD3	2.09	0.52
1:E:4555:LEU:HD21	1:E:4656:LEU:O	2.10	0.52
1:G:1584:ARG:HH11	1:G:1643:GLU:HG3	1.74	0.52
1:G:1805:GLU:O	1:G:1808:ARG:HG2	2.09	0.52
1:C:231:LEU:HD11	1:C:245:VAL:HG13	1.92	0.52
1:C:639:ASN:OD1	1:C:640:TYR:N	2.42	0.52
1:C:1737:PRO:HB3	1:C:2149:VAL:HG11	1.92	0.52
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	1.89	0.52
1:E:842:PRO:HA	1:E:1073:ARG:HH12	1.74	0.52
1:E:3698:LEU:HD23	1:E:3773:ARG:HD2	1.91	0.52
1:G:217:GLY:O	1:G:261:ARG:NH1	2.42	0.52
1:G:2551:ASN:O	1:G:2554:LEU:HG	2.09	0.52
1:G:3817:LEU:HD11	1:G:3821:LYS:HZ1	1.74	0.52
1:C:547:VAL:HG12	1:C:564:LEU:HD12	1.92	0.52
1:C:664:PHE:CE2	1:C:779:PRO:HB3	2.45	0.52
1:C:853:PRO:HB3	1:C:1023:PRO:HB3	1.92	0.52
1:C:2453:ILE:HA	1:C:2456:ILE:HD12	1.92	0.52
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.75	0.52
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.92	0.52
1:E:1737:PRO:HB3	1:E:2149:VAL:HG11	1.92	0.52
1:G:639:ASN:OD1	1:G:640:TYR:N	2.42	0.52
1:G:1127:HIS:ND1	1:G:1128:ARG:HG2	2.25	0.52
1:G:2149:VAL:O	1:G:2152:THR:OG1	2.16	0.52
1:A:2143:THR:N	1:A:3651:ASN:OD1	2.43	0.52
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.10	0.52
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:638:ILE:HG23	1:C:678:GLN:HE22	1.75	0.52
1:C:2143:THR:N	1:C:3651:ASN:OD1	2.43	0.52
1:C:4686:LEU:HD13	1:C:4692:PRO:HD3	1.91	0.52
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.92	0.52
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.45	0.52
2:F:49:MET:N	2:F:54:GLU:OE2	2.43	0.52
1:G:674:PHE:O	2:H:40:ARG:NH1	2.42	0.52
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.91	0.52
1:A:567:VAL:HG12	1:A:574:VAL:HG11	1.92	0.51
1:A:863:LEU:H	1:A:930:LYS:HE3	1.75	0.51
1:A:3878:ASP:O	1:A:3881:THR:HG22	2.10	0.51
1:A:4164:LEU:HD23	1:A:4168:GLU:OE2	2.10	0.51
2:B:49:MET:N	2:B:54:GLU:OE2	2.43	0.51
1:C:1972:ASN:O	1:C:1975:SER:OG	2.26	0.51
1:C:3996:PHE:CZ	1:C:4019:LEU:HD22	2.41	0.51
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.91	0.51
1:E:629:ARG:NH1	1:E:1688:HIS:CD2	2.78	0.51
1:E:1653:LEU:HD23	1:E:1707:LEU:HD11	1.91	0.51
1:E:1691:GLN:HE22	1:E:1802:ILE:HA	1.74	0.51
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.11	0.51
1:E:4849:TYR:O	1:E:4852:THR:HG22	2.10	0.51
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.92	0.51
1:A:223:PHE:HD1	1:A:230:CYS:HB3	1.75	0.51
1:A:613:ALA:HB1	1:A:618:GLN:HE22	1.75	0.51
1:A:629:ARG:NH1	1:A:1688:HIS:CD2	2.78	0.51
1:A:842:PRO:HA	1:A:1073:ARG:HH12	1.74	0.51
1:A:4574:ASN:HB3	1:G:4849:TYR:OH	2.10	0.51
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.91	0.51
1:C:3879:GLU:OE2	1:C:3883:ASP:OD2	2.28	0.51
1:E:853:PRO:HB3	1:E:1023:PRO:HB3	1.92	0.51
1:E:1127:HIS:ND1	1:E:1128:ARG:HG2	2.26	0.51
1:G:12:GLN:O	1:G:165:VAL:HG23	2.10	0.51
1:G:231:LEU:HD11	1:G:245:VAL:HG13	1.92	0.51
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.93	0.51
1:G:2453:ILE:HA	1:G:2456:ILE:HD12	1.92	0.51
1:A:664:PHE:CE2	1:A:779:PRO:HB3	2.45	0.51
1:A:2755:ILE:HD13	1:A:2810:LYS:HG2	1.93	0.51
1:A:3963:ASN:HA	1:A:3966:THR:HG22	1.92	0.51
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.45	0.51
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.43	0.51
1:C:753:PRO:HB2	1:C:769:GLU:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.76	0.51
2:D:49:MET:N	2:D:54:GLU:OE2	2.43	0.51
1:E:646:PRO:HD2	1:E:779:PRO:HG2	1.92	0.51
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.75	0.51
1:E:1805:GLU:O	1:E:1808:ARG:HG2	2.10	0.51
1:E:4164:LEU:HD23	1:E:4168:GLU:OE2	2.10	0.51
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.78	0.51
1:G:629:ARG:NH1	1:G:1688:HIS:CD2	2.78	0.51
1:A:547:VAL:HG12	1:A:564:LEU:HD12	1.92	0.51
1:A:638:ILE:HG23	1:A:678:GLN:HE22	1.76	0.51
1:A:646:PRO:HD2	1:A:779:PRO:HG2	1.92	0.51
1:A:1127:HIS:ND1	1:A:1128:ARG:HG2	2.26	0.51
1:A:2112:GLN:O	1:A:2113:SER:OG	2.24	0.51
1:A:2453:ILE:HA	1:A:2456:ILE:HD12	1.93	0.51
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.91	0.51
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.10	0.51
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.45	0.51
1:E:1849:LEU:HG	1:E:1945:TYR:CE2	2.46	0.51
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.91	0.51
1:G:634:GLN:HB3	1:G:1640:HIS:HE1	1.74	0.51
1:G:4033:GLY:O	1:G:4189:ARG:NH2	2.29	0.51
1:G:4691:GLN:HB2	1:G:4703:ARG:HH22	1.75	0.51
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.91	0.51
1:A:853:PRO:HB3	1:A:1023:PRO:HB3	1.92	0.51
1:A:4055:VAL:HG13	1:A:4058:ILE:HD11	1.91	0.51
1:C:835:ARG:NH2	1:C:1093:GLU:OE2	2.43	0.51
1:C:3698:LEU:HD23	1:C:3773:ARG:HD2	1.91	0.51
1:C:3963:ASN:HA	1:C:3966:THR:HG22	1.92	0.51
1:C:4164:LEU:HD23	1:C:4168:GLU:OE2	2.10	0.51
1:C:4576:ILE:HG22	1:C:4643:LEU:HD12	1.92	0.51
1:E:638:ILE:HG23	1:E:678:GLN:HE22	1.76	0.51
1:E:989:ALA:HB1	1:E:1035:ASN:HB3	1.93	0.51
1:E:1821:ASP:OD1	1:E:1822:GLY:N	2.44	0.51
1:E:2755:ILE:HD13	1:E:2810:LYS:HG2	1.93	0.51
1:E:3879:GLU:OE2	1:E:3883:ASP:OD2	2.28	0.51
2:F:88:PRO:O	2:F:90:ILE:HD12	2.09	0.51
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.93	0.51
1:G:835:ARG:NH2	1:G:1093:GLU:OE2	2.43	0.51
1:G:842:PRO:HA	1:G:1073:ARG:HH12	1.74	0.51
1:G:4712:PRO:HD3	1:G:4721:LYS:HE3	1.93	0.51
1:A:256:ALA:HB3	1:A:481:GLU:OE2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2807:TRP:O	1:A:2811:GLU:HG2	2.11	0.51
1:A:3698:LEU:HD23	1:A:3773:ARG:HD2	1.92	0.51
1:A:3965:LEU:HA	1:A:3968:TYR:CD2	2.46	0.51
1:A:4205:TRP:HZ2	1:A:4214:LYS:HE2	1.76	0.51
1:C:863:LEU:H	1:C:930:LYS:HE3	1.76	0.51
1:C:1691:GLN:HE22	1:C:1802:ILE:HA	1.75	0.51
1:C:3965:LEU:HA	1:C:3968:TYR:CD2	2.46	0.51
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.75	0.51
1:G:1972:ASN:O	1:G:1975:SER:OG	2.27	0.51
1:G:4555:LEU:HD21	1:G:4656:LEU:O	2.11	0.51
1:A:635:THR:OG1	1:A:1693:GLN:NE2	2.43	0.51
1:A:2476:ILE:HA	1:A:2495:VAL:HG21	1.92	0.51
1:C:12:GLN:O	1:C:165:VAL:HG23	2.11	0.51
1:C:1127:HIS:ND1	1:C:1128:ARG:HG2	2.26	0.51
1:C:2907:PRO:O	1:C:2910:THR:OG1	2.16	0.51
1:E:590:LEU:HB2	1:E:599:VAL:HG11	1.92	0.51
1:E:753:PRO:HB2	1:E:769:GLU:O	2.11	0.51
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.46	0.51
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.75	0.51
1:A:1653:LEU:HD23	1:A:1707:LEU:HD11	1.91	0.51
1:A:1658:ASP:OD1	1:A:1661:ARG:NH2	2.44	0.51
1:A:3879:GLU:OE2	1:A:3883:ASP:OD2	2.28	0.51
1:A:4655:PHE:O	1:A:4658:ILE:HG13	2.10	0.51
2:B:25:HIS:CG	2:B:40:ARG:HE	2.29	0.51
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.92	0.51
1:C:1101:ARG:N	1:C:1193:SER:HB3	2.25	0.51
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.92	0.51
1:C:4849:TYR:O	1:C:4852:THR:HG22	2.10	0.51
1:E:1658:ASP:OD1	1:E:1661:ARG:NH2	2.44	0.51
1:E:4878:ASP:HA	1:G:4581:LYS:CB	2.40	0.51
2:F:25:HIS:CG	2:F:40:ARG:HE	2.29	0.51
1:G:1653:LEU:HD23	1:G:1707:LEU:HD11	1.92	0.51
1:G:1691:GLN:HE22	1:G:1802:ILE:HA	1.75	0.51
1:A:1849:LEU:HG	1:A:1945:TYR:CE2	2.46	0.51
1:C:635:THR:OG1	1:C:1693:GLN:NE2	2.43	0.51
1:C:674:PHE:O	2:D:40:ARG:NH1	2.44	0.51
1:C:1849:LEU:HG	1:C:1945:TYR:CE2	2.46	0.51
1:C:2807:TRP:O	1:C:2811:GLU:HG2	2.11	0.51
1:C:4555:LEU:HD21	1:C:4656:LEU:O	2.10	0.51
1:E:223:PHE:HD1	1:E:230:CYS:HB3	1.75	0.51
1:E:668:VAL:HA	1:E:789:VAL:HG12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1769:THR:OG1	1:E:1956:GLU:OE2	2.25	0.51
1:E:2341:VAL:HG11	1:E:2346:VAL:HG13	1.92	0.51
1:G:1821:ASP:OD1	1:G:1822:GLY:N	2.44	0.51
1:G:2063:LEU:HD13	1:G:3661:TRP:HH2	1.76	0.51
1:G:2341:VAL:HG11	1:G:2346:VAL:HG13	1.91	0.51
1:G:2476:ILE:HA	1:G:2495:VAL:HG21	1.93	0.51
1:G:2561:LEU:HD11	1:G:2601:ASP:HA	1.93	0.51
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.92	0.51
1:A:403:MET:HE1	1:A:448:LEU:HD23	1.92	0.51
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.44	0.51
1:A:668:VAL:HA	1:A:789:VAL:HG12	1.93	0.51
1:A:4030:LEU:HD21	1:A:4040:ILE:HG12	1.93	0.51
1:C:668:VAL:HA	1:C:789:VAL:HG12	1.93	0.51
1:C:1658:ASP:OD1	1:C:1661:ARG:NH2	2.44	0.51
1:C:4843:LEU:CD1	1:E:4827:LEU:HD11	2.39	0.51
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.43	0.51
1:E:669:ASP:HB2	1:E:788:LYS:HG3	1.93	0.51
1:E:1113:VAL:HG12	1:E:1114:GLU:O	2.11	0.51
1:E:2143:THR:N	1:E:3651:ASN:OD1	2.43	0.51
1:E:4983:HIS:O	1:E:4985:LEU:N	2.44	0.51
1:G:1671:ARG:NH1	1:G:1713:ASP:OD2	2.43	0.51
1:G:3878:ASP:O	1:G:3881:THR:HG22	2.11	0.51
1:G:4055:VAL:HG13	1:G:4058:ILE:HD11	1.92	0.51
1:A:753:PRO:HB2	1:A:769:GLU:O	2.11	0.50
1:C:629:ARG:NH1	1:C:1688:HIS:CD2	2.78	0.50
1:C:3661:TRP:O	1:C:3664:THR:HG23	2.11	0.50
1:C:4684:ASP:OD2	1:C:4686:LEU:HD23	2.11	0.50
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.92	0.50
1:E:446:GLN:HG3	1:E:521:LEU:HD21	1.93	0.50
1:E:635:THR:OG1	1:E:1693:GLN:NE2	2.43	0.50
1:E:4655:PHE:O	1:E:4658:ILE:HG13	2.10	0.50
1:E:4686:LEU:HD13	1:E:4692:PRO:HD3	1.92	0.50
1:G:223:PHE:HD1	1:G:230:CYS:HB3	1.75	0.50
1:G:448:LEU:HD12	1:G:525:LEU:HD11	1.93	0.50
1:G:1113:VAL:HG12	1:G:1114:GLU:O	2.11	0.50
1:G:1698:LEU:HG	1:G:1712:TYR:CE1	2.46	0.50
1:G:4221:VAL:O	1:G:4225:GLY:N	2.37	0.50
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.76	0.50
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.11	0.50
1:G:4856:PHE:CE2	1:G:4860:ARG:NH1	2.79	0.50
1:A:1113:VAL:HG12	1:A:1114:GLU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:548:VAL:O	1:C:551:LEU:HB3	2.12	0.50
1:C:646:PRO:HD2	1:C:779:PRO:HG2	1.92	0.50
1:C:1698:LEU:HG	1:C:1712:TYR:CE1	2.46	0.50
1:C:1712:TYR:O	1:C:1716:ILE:HG12	2.11	0.50
1:E:547:VAL:HG12	1:E:564:LEU:HD12	1.92	0.50
1:E:1698:LEU:HG	1:E:1712:TYR:CE1	2.46	0.50
1:E:2161:GLN:O	1:E:2164:SER:OG	2.16	0.50
1:E:4049:VAL:HG21	1:E:4159:ARG:HD3	1.93	0.50
1:G:1849:LEU:HG	1:G:1945:TYR:CE2	2.46	0.50
1:A:1101:ARG:N	1:A:1193:SER:HB3	2.25	0.50
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.47	0.50
1:C:448:LEU:HD12	1:C:525:LEU:HD11	1.93	0.50
1:C:4030:LEU:HD21	1:C:4040:ILE:HG12	1.93	0.50
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.12	0.50
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.47	0.50
1:E:634:GLN:HB3	1:E:1640:HIS:HE1	1.74	0.50
1:E:1775:HIS:NE2	1:E:1851:MET:HG3	2.25	0.50
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.92	0.50
1:E:3661:TRP:O	1:E:3664:THR:HG23	2.11	0.50
1:G:1101:ARG:N	1:G:1193:SER:HB3	2.25	0.50
1:G:1285:GLU:HG2	1:G:1286:MET:HG2	1.93	0.50
1:G:4193:ILE:HG22	1:G:5006:GLN:OE1	2.11	0.50
1:A:839:LEU:HD22	1:A:1075:PHE:CE1	2.47	0.50
1:A:1087:ARG:HB3	1:A:1223:PHE:CD1	2.47	0.50
1:A:4937:ILE:CD1	1:G:4934:GLY:CA	2.87	0.50
1:A:4984:ASN:HD21	1:A:4987:ASN:ND2	2.10	0.50
1:C:567:VAL:HG12	1:C:574:VAL:HG11	1.92	0.50
1:C:839:LEU:HD22	1:C:1075:PHE:CE1	2.47	0.50
1:C:4983:HIS:HE1	1:C:5023:PRO:HG2	1.76	0.50
1:E:20:VAL:HG12	1:E:204:PRO:HA	1.94	0.50
1:E:674:PHE:O	2:F:40:ARG:NH1	2.44	0.50
1:G:668:VAL:HA	1:G:789:VAL:HG12	1.94	0.50
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.92	0.50
1:G:989:ALA:HB1	1:G:1035:ASN:HB3	1.93	0.50
1:G:1293:LEU:HD11	1:G:1598:GLN:HG2	1.94	0.50
1:G:4240:ASP:OD1	1:G:4675:LYS:NZ	2.36	0.50
1:G:4640:GLU:HB3	1:G:4641:PRO:HD3	1.93	0.50
1:A:989:ALA:HB1	1:A:1035:ASN:HB3	1.92	0.50
1:A:1089:TYR:HE2	1:A:1091:GLU:OE2	1.95	0.50
1:A:1687:SER:CB	2:B:90:ILE:HG12	2.42	0.50
1:A:1698:LEU:HG	1:A:1712:TYR:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4983:HIS:O	1:A:4985:LEU:N	2.44	0.50
1:C:495:ASN:CB	1:C:553:ARG:HH12	2.25	0.50
1:C:1113:VAL:HG12	1:C:1114:GLU:O	2.11	0.50
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.11	0.50
1:E:231:LEU:HD11	1:E:245:VAL:HG13	1.91	0.50
1:E:863:LEU:H	1:E:930:LYS:HE3	1.75	0.50
1:E:1285:GLU:HG2	1:E:1286:MET:HG2	1.92	0.50
1:E:2807:TRP:O	1:E:2811:GLU:HG2	2.12	0.50
1:G:495:ASN:CB	1:G:553:ARG:HH12	2.25	0.50
1:G:547:VAL:HG12	1:G:564:LEU:HD12	1.92	0.50
1:G:753:PRO:HB2	1:G:769:GLU:O	2.11	0.50
1:G:1658:ASP:OD1	1:G:1661:ARG:NH2	2.44	0.50
1:G:2107:GLN:NE2	1:G:3680:ALA:O	2.44	0.50
1:G:4579:PHE:HB2	1:G:4631:PHE:CE1	2.47	0.50
1:A:15:ARG:N	1:A:18:ASP:OD2	2.45	0.50
1:A:222:LEU:HD22	1:A:231:LEU:HD23	1.94	0.50
1:A:3661:TRP:O	1:A:3664:THR:HG23	2.11	0.50
1:A:3977:GLN:NE2	1:A:4032:GLU:OE2	2.44	0.50
1:A:4878:ASP:HA	1:C:4581:LYS:CB	2.41	0.50
1:A:4983:HIS:HE1	1:A:5023:PRO:HG2	1.76	0.50
1:C:1598:GLN:NE2	1:C:1643:GLU:OE2	2.45	0.50
1:C:2755:ILE:HD13	1:C:2810:LYS:HG2	1.93	0.50
1:E:835:ARG:NH2	1:E:1093:GLU:OE2	2.44	0.50
1:E:1101:ARG:N	1:E:1193:SER:HB3	2.26	0.50
1:E:3771:HIS:HE1	1:E:3815:LYS:HB3	1.76	0.50
1:E:4205:TRP:HZ2	1:E:4214:LYS:HE2	1.76	0.50
1:E:4221:VAL:O	1:E:4225:GLY:N	2.43	0.50
1:G:548:VAL:O	1:G:551:LEU:HB3	2.12	0.50
1:G:669:ASP:HB2	1:G:788:LYS:HG3	1.94	0.50
1:G:1775:HIS:NE2	1:G:1851:MET:HG3	2.26	0.50
1:G:4859:PHE:HZ	1:G:4912:TYR:HB3	1.76	0.50
1:A:1227:ALA:HA	1:A:1230:MET:HB2	1.94	0.50
1:A:1821:ASP:OD1	1:A:1822:GLY:N	2.44	0.50
1:A:3989:VAL:HG12	1:A:4047:MET:HE1	1.93	0.50
1:C:634:GLN:HB3	1:C:1640:HIS:HE1	1.74	0.50
1:C:669:ASP:HB2	1:C:788:LYS:HG3	1.93	0.50
1:E:828:GLU:O	1:E:840:VAL:HG23	2.12	0.50
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.19	0.50
1:G:446:GLN:HG3	1:G:521:LEU:HD21	1.94	0.50
1:G:839:LEU:HD22	1:G:1075:PHE:CE1	2.47	0.50
1:G:853:PRO:HB3	1:G:1023:PRO:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:887:ILE:HD11	1:G:907:LEU:HB3	1.94	0.50
1:G:3927:GLN:O	1:G:3931:SER:N	2.34	0.50
1:G:4851:TYR:O	1:G:4855:ALA:N	2.44	0.50
1:A:887:ILE:HD11	1:A:907:LEU:HB3	1.94	0.50
1:A:1285:GLU:HG2	1:A:1286:MET:HG2	1.92	0.50
1:A:1775:HIS:NE2	1:A:1851:MET:HG3	2.26	0.50
1:A:2561:LEU:HD11	1:A:2601:ASP:HA	1.93	0.50
1:C:3771:HIS:CE1	1:C:3812:VAL:HA	2.47	0.50
1:C:3771:HIS:HE1	1:C:3815:LYS:HB3	1.77	0.50
2:D:25:HIS:CG	2:D:40:ARG:HE	2.29	0.50
1:E:839:LEU:HD22	1:E:1075:PHE:CE1	2.47	0.50
1:E:1687:SER:CB	2:F:90:ILE:HG12	2.42	0.50
1:E:1712:TYR:O	1:E:1716:ILE:HG12	2.11	0.50
1:E:2326:CYS:O	1:E:2330:ARG:HG2	2.12	0.50
1:E:3902:TYR:O	1:E:3906:GLN:N	2.45	0.50
1:G:4145:VAL:O	1:G:4149:ASN:N	2.40	0.50
1:G:4555:LEU:HD11	1:G:4656:LEU:HB2	1.92	0.50
1:G:4661:TYR:CE1	1:G:4665:LYS:HB2	2.46	0.50
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.93	0.50
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.76	0.50
1:A:1259:ARG:HH12	1:A:1597:VAL:HA	1.77	0.50
1:A:1712:TYR:O	1:A:1716:ILE:HG12	2.11	0.50
1:A:3713:LYS:O	1:A:3715:LYS:N	2.45	0.50
1:A:3839:CYS:SG	1:A:3881:THR:HB	2.52	0.50
1:A:4684:ASP:OD2	1:A:4686:LEU:HD23	2.11	0.50
1:C:1087:ARG:HB3	1:C:1223:PHE:CD1	2.47	0.50
1:C:1089:TYR:HE2	1:C:1091:GLU:OE2	1.95	0.50
1:C:2326:CYS:O	1:C:2330:ARG:HG2	2.12	0.50
1:C:2476:ILE:HA	1:C:2495:VAL:HG21	1.93	0.50
1:C:3958:ALA:CB	1:C:4019:LEU:HD11	2.40	0.50
1:C:3977:GLN:NE2	1:C:4032:GLU:OE2	2.44	0.50
1:C:4984:ASN:HD21	1:C:4987:ASN:ND2	2.09	0.50
1:E:103:TYR:CE2	1:E:163:VAL:HA	2.47	0.50
1:G:2155:LEU:HD13	1:G:2188:ASN:HD22	1.77	0.50
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.93	0.50
1:A:446:GLN:HG3	1:A:521:LEU:HD21	1.93	0.49
1:A:634:GLN:HB3	1:A:1640:HIS:HE1	1.74	0.49
1:A:716:PHE:H	1:A:738:LEU:HD13	1.77	0.49
1:A:2561:LEU:HD21	1:A:2601:ASP:HA	1.94	0.49
1:A:3882:GLN:OE1	1:A:3957:VAL:HA	2.12	0.49
1:A:4856:PHE:CE2	1:A:4860:ARG:NH1	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:716:PHE:H	1:C:738:LEU:HD13	1.77	0.49
1:C:1821:ASP:OD1	1:C:1822:GLY:N	2.44	0.49
1:C:2561:LEU:HD11	1:C:2601:ASP:HA	1.93	0.49
1:C:3805:LEU:O	1:C:3807:GLY:N	2.45	0.49
1:E:15:ARG:N	1:E:18:ASP:OD2	2.45	0.49
1:E:448:LEU:HD12	1:E:525:LEU:HD11	1.93	0.49
1:E:2476:ILE:HA	1:E:2495:VAL:HG21	1.93	0.49
1:E:2561:LEU:HD11	1:E:2601:ASP:HA	1.93	0.49
1:E:3835:LEU:CD1	1:E:3884:LEU:HD13	2.42	0.49
1:E:3977:GLN:NE2	1:E:4032:GLU:OE2	2.45	0.49
1:E:4967:TYR:HD2	1:E:4968:PHE:CE1	2.30	0.49
1:G:1163:THR:HG22	1:G:1168:VAL:HA	1.94	0.49
1:G:2532:ALA:HA	1:G:2550:LEU:HD22	1.94	0.49
1:G:4661:TYR:OH	1:G:4788:SER:HB3	2.12	0.49
1:A:2532:ALA:HA	1:A:2550:LEU:HD22	1.94	0.49
1:A:3996:PHE:CZ	1:A:4019:LEU:HD22	2.41	0.49
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.12	0.49
1:C:1775:HIS:NE2	1:C:1851:MET:HG3	2.28	0.49
1:C:4049:VAL:HG21	1:C:4159:ARG:HD3	1.93	0.49
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.77	0.49
1:E:2561:LEU:HD21	1:E:2601:ASP:HA	1.93	0.49
1:E:4118:ASP:HB2	1:E:4122:MET:HB2	1.94	0.49
1:E:4684:ASP:OD2	1:E:4686:LEU:HD23	2.12	0.49
1:E:4925:ILE:HG23	1:E:4929:LEU:HD12	1.94	0.49
1:E:4984:ASN:HD21	1:E:4987:ASN:ND2	2.09	0.49
1:G:1087:ARG:HB3	1:G:1223:PHE:CD1	2.47	0.49
1:G:2326:CYS:O	1:G:2330:ARG:HG2	2.12	0.49
1:G:3733:CYS:HB2	1:G:3803:SER:OG	2.11	0.49
1:G:3886:ARG:O	1:G:3890:LEU:HD13	2.11	0.49
1:G:4035:VAL:HG12	1:G:4036:VAL:N	2.27	0.49
1:A:495:ASN:CB	1:A:553:ARG:HH12	2.25	0.49
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.19	0.49
1:A:3771:HIS:HE1	1:A:3815:LYS:HB3	1.77	0.49
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.78	0.49
1:C:674:PHE:CB	2:D:40:ARG:NH1	2.72	0.49
1:C:1293:LEU:HD11	1:C:1598:GLN:HG2	1.94	0.49
1:E:887:ILE:HD11	1:E:907:LEU:HB3	1.94	0.49
1:E:1089:TYR:HE2	1:E:1091:GLU:OE2	1.95	0.49
1:E:1723:ALA:HB1	1:E:1775:HIS:CD2	2.43	0.49
1:E:3817:LEU:HD11	1:E:3821:LYS:HZ1	1.77	0.49
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4983:HIS:HE1	1:E:5023:PRO:HG2	1.76	0.49
1:G:462:GLU:HG3	1:G:3823:LYS:HZ3	1.77	0.49
1:G:646:PRO:HD2	1:G:779:PRO:HG2	1.92	0.49
1:G:1457:TYR:OH	1:G:1553:PHE:CE1	2.60	0.49
1:G:1970:GLN:HE22	1:G:3645:PRO:HD2	1.77	0.49
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.93	0.49
1:A:54:ASN:O	1:A:56:GLN:N	2.46	0.49
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.46	0.49
1:A:2124:LEU:HD21	1:A:3677:LEU:HD21	1.95	0.49
1:A:2155:LEU:HD13	1:A:2188:ASN:HD22	1.78	0.49
1:C:887:ILE:HD11	1:C:907:LEU:HB3	1.94	0.49
1:C:1078:GLU:HB3	1:C:1081:TYR:CD2	2.48	0.49
1:C:4118:ASP:HB2	1:C:4122:MET:HB2	1.94	0.49
1:C:4983:HIS:O	1:C:4985:LEU:N	2.44	0.49
1:E:597:HIS:HB2	1:E:1665:HIS:CD2	2.48	0.49
1:E:712:TYR:HB3	1:E:768:PHE:CE1	2.48	0.49
1:E:1163:THR:HG22	1:E:1168:VAL:HA	1.94	0.49
1:G:597:HIS:HB2	1:G:1665:HIS:CD2	2.47	0.49
1:G:828:GLU:O	1:G:840:VAL:HG23	2.12	0.49
1:G:863:LEU:H	1:G:930:LYS:HE3	1.76	0.49
1:G:1206:GLN:O	1:G:1209:SER:OG	2.18	0.49
1:A:415:ILE:HG23	1:A:493:ARG:HD2	1.95	0.49
1:A:548:VAL:O	1:A:551:LEU:HB3	2.12	0.49
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.94	0.49
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.95	0.49
1:C:54:ASN:O	1:C:56:GLN:N	2.46	0.49
1:C:256:ALA:HB3	1:C:481:GLU:OE2	2.13	0.49
1:C:1285:GLU:HG2	1:C:1286:MET:HG2	1.93	0.49
1:C:2561:LEU:HD21	1:C:2601:ASP:HA	1.94	0.49
1:C:3798:LEU:HD11	1:C:3884:LEU:HD12	1.94	0.49
1:C:3839:CYS:SG	1:C:3881:THR:HB	2.52	0.49
1:C:4205:TRP:HZ2	1:C:4214:LYS:HE2	1.76	0.49
1:C:4973:HIS:HD2	1:C:4977:THR:HG23	1.77	0.49
1:E:495:ASN:CB	1:E:553:ARG:HH12	2.25	0.49
1:E:1259:ARG:HH12	1:E:1597:VAL:HA	1.77	0.49
1:E:2155:LEU:HD13	1:E:2188:ASN:HD22	1.77	0.49
1:E:3669:PHE:O	1:E:3672:ARG:HG2	2.13	0.49
1:E:4030:LEU:HD21	1:E:4040:ILE:HG12	1.93	0.49
1:E:4888:TYR:O	1:E:4892:ARG:HD3	2.12	0.49
1:G:54:ASN:O	1:G:56:GLN:N	2.46	0.49
1:G:494:LEU:HB3	1:G:519:VAL:HG22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4240:ASP:CG	1:G:4675:LYS:HZ3	2.15	0.49
1:A:2139:PRO:HG3	1:A:3658:LYS:NZ	2.27	0.49
1:C:403:MET:HE2	1:C:448:LEU:HD23	1.94	0.49
1:C:712:TYR:HB3	1:C:768:PHE:CE1	2.47	0.49
1:C:989:ALA:HB1	1:C:1035:ASN:HB3	1.93	0.49
1:C:4878:ASP:HA	1:E:4581:LYS:CB	2.43	0.49
1:E:1227:ALA:HA	1:E:1230:MET:HB2	1.95	0.49
1:G:716:PHE:H	1:G:738:LEU:HD13	1.77	0.49
1:G:1598:GLN:NE2	1:G:1643:GLU:OE2	2.45	0.49
1:G:1712:TYR:O	1:G:1716:ILE:HG12	2.12	0.49
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.12	0.49
1:G:4574:ASN:HA	1:G:4577:LEU:HB2	1.92	0.49
1:A:462:GLU:HG3	1:A:3823:LYS:NZ	2.27	0.49
1:A:669:ASP:HB2	1:A:788:LYS:HG3	1.94	0.49
1:A:2821:TRP:CD1	1:A:2939:ARG:HA	2.48	0.49
1:A:3647:HIS:O	1:A:3651:ASN:ND2	2.46	0.49
1:A:3771:HIS:CE1	1:A:3812:VAL:HA	2.47	0.49
1:C:446:GLN:HG3	1:C:521:LEU:HD21	1.93	0.49
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.94	0.49
1:C:1687:SER:CB	2:D:90:ILE:HG12	2.42	0.49
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.78	0.49
1:C:3882:GLN:OE1	1:C:3957:VAL:HA	2.12	0.49
1:C:4032:GLU:HB2	1:C:5006:GLN:CD	2.32	0.49
1:E:441:VAL:O	1:E:444:SER:OG	2.16	0.49
1:E:462:GLU:HG3	1:E:3823:LYS:NZ	2.28	0.49
1:E:4856:PHE:CE2	1:E:4860:ARG:NH1	2.81	0.49
1:E:4973:HIS:HD2	1:E:4977:THR:HG23	1.77	0.49
1:G:495:ASN:HB3	1:G:553:ARG:HH12	1.77	0.49
1:G:4032:GLU:HB2	1:G:5006:GLN:CD	2.33	0.49
1:G:4904:PRO:HB2	1:G:4910:GLU:HG3	1.93	0.49
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.78	0.49
1:A:291:LEU:HA	1:A:301:VAL:HA	1.95	0.49
1:A:1078:GLU:HB3	1:A:1081:TYR:CD2	2.48	0.49
1:A:1598:GLN:NE2	1:A:1643:GLU:OE2	2.45	0.49
1:C:49:LEU:HD21	1:C:191:VAL:HG23	1.95	0.49
1:C:4147:LEU:HD21	1:C:4163:PHE:HE2	1.78	0.49
1:E:495:ASN:HB3	1:E:553:ARG:HH12	1.77	0.49
1:E:1598:GLN:NE2	1:E:1643:GLU:OE2	2.45	0.49
1:E:4032:GLU:HB2	1:E:5006:GLN:CD	2.32	0.49
1:E:4554:TYR:HA	1:E:4557:ARG:NH1	2.28	0.49
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:49:LEU:HD21	1:G:191:VAL:HG23	1.95	0.49
1:G:2561:LEU:HD21	1:G:2601:ASP:HA	1.94	0.49
1:G:4977:THR:O	1:G:4981:GLU:N	2.45	0.49
1:G:5013:MET:HG3	1:G:5018:CYS:HB2	1.94	0.49
1:A:49:LEU:HD21	1:A:191:VAL:HG23	1.95	0.49
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.78	0.49
1:A:4967:TYR:HD2	1:A:4968:PHE:CE1	2.30	0.49
1:C:494:LEU:HB3	1:C:519:VAL:HG22	1.95	0.49
1:C:540:PHE:HA	1:C:543:ASN:HB2	1.94	0.49
1:C:1253:PRO:O	1:C:1254:HIS:HB2	2.13	0.49
1:C:1259:ARG:HH12	1:C:1597:VAL:HA	1.78	0.49
1:C:2532:ALA:HA	1:C:2550:LEU:HD22	1.94	0.49
1:C:3780:LEU:HD12	1:C:3828:PHE:CE1	2.48	0.49
1:C:4680:LYS:O	1:C:4685:GLY:N	2.44	0.49
1:C:4967:TYR:HD2	1:C:4968:PHE:CE1	2.30	0.49
1:E:494:LEU:HB3	1:E:519:VAL:HG22	1.95	0.49
1:E:1456:ASP:O	1:E:1457:TYR:HB2	2.13	0.49
1:E:3969:ILE:HG23	1:E:3977:GLN:HG2	1.95	0.49
1:G:1227:ALA:HA	1:G:1230:MET:HB2	1.94	0.49
1:G:4849:TYR:HA	1:G:4852:THR:HG22	1.95	0.49
1:A:274:LEU:HD12	1:A:278:GLN:NE2	2.27	0.49
1:A:283:ARG:HD2	1:A:290:TYR:CZ	2.48	0.49
1:A:701:GLY:O	1:A:1647:CYS:HB3	2.13	0.49
1:A:712:TYR:HB3	1:A:768:PHE:CE1	2.48	0.49
1:A:2326:CYS:O	1:A:2330:ARG:HG2	2.12	0.49
1:C:215:THR:CG2	1:C:273:HIS:HD2	2.26	0.49
1:C:828:GLU:O	1:C:840:VAL:HG23	2.12	0.49
1:C:931:THR:CB	1:C:988:LEU:HD22	2.43	0.49
1:C:2107:GLN:NE2	1:C:3680:ALA:O	2.46	0.49
1:C:2139:PRO:HG3	1:C:3658:LYS:NZ	2.28	0.49
1:C:3959:LYS:HG3	1:C:4022:ASP:OD2	2.13	0.49
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.93	0.49
1:C:4712:PRO:HG2	1:C:4718:LYS:HD2	1.95	0.49
1:C:4977:THR:O	1:C:4981:GLU:N	2.46	0.49
1:E:54:ASN:O	1:E:56:GLN:N	2.46	0.49
1:E:548:VAL:O	1:E:551:LEU:HB3	2.12	0.49
1:E:716:PHE:H	1:E:738:LEU:HD13	1.77	0.49
1:E:1087:ARG:HB3	1:E:1223:PHE:CD1	2.47	0.49
1:E:1253:PRO:O	1:E:1254:HIS:HB2	2.13	0.49
1:E:2107:GLN:NE2	1:E:3680:ALA:O	2.46	0.49
1:E:3805:LEU:O	1:E:3807:GLY:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3882:GLN:OE1	1:E:3957:VAL:HA	2.12	0.49
1:E:4147:LEU:HD21	1:E:4163:PHE:HE2	1.77	0.49
1:G:701:GLY:O	1:G:1647:CYS:HB3	2.13	0.49
1:G:1078:GLU:HB3	1:G:1081:TYR:CD2	2.47	0.49
1:G:1456:ASP:O	1:G:1457:TYR:HB2	2.12	0.49
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.48	0.49
1:A:828:GLU:O	1:A:840:VAL:HG23	2.12	0.48
1:A:931:THR:CB	1:A:988:LEU:HD22	2.43	0.48
1:A:2765:LYS:NZ	1:A:2769:ASP:OD2	2.37	0.48
1:A:3767:GLN:NE2	1:A:3806:ASN:HB3	2.27	0.48
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.47	0.48
1:A:4032:GLU:HB2	1:A:5006:GLN:CD	2.32	0.48
1:C:291:LEU:HA	1:C:301:VAL:HA	1.94	0.48
1:C:701:GLY:O	1:C:1647:CYS:HB3	2.13	0.48
1:C:2068:GLU:OE1	1:C:2068:GLU:N	2.46	0.48
1:C:3835:LEU:HD12	1:C:3836:MET:N	2.28	0.48
1:E:49:LEU:HD21	1:E:191:VAL:HG23	1.95	0.48
1:E:222:LEU:HD22	1:E:231:LEU:HD23	1.94	0.48
1:E:3647:HIS:O	1:E:3651:ASN:ND2	2.46	0.48
1:E:3771:HIS:CE1	1:E:3812:VAL:HA	2.48	0.48
1:E:3959:LYS:HG3	1:E:4022:ASP:OD2	2.13	0.48
1:E:4035:VAL:HG12	1:E:4036:VAL:N	2.28	0.48
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.47	0.48
1:G:2807:TRP:O	1:G:2811:GLU:HG2	2.13	0.48
1:G:4967:TYR:HD2	1:G:4968:PHE:CE1	2.31	0.48
1:A:495:ASN:HB3	1:A:553:ARG:HH12	1.77	0.48
1:A:3780:LEU:HD12	1:A:3828:PHE:CE1	2.48	0.48
1:A:4049:VAL:HG21	1:A:4159:ARG:HD3	1.94	0.48
1:A:4973:HIS:HD2	1:A:4977:THR:HG23	1.78	0.48
1:C:274:LEU:HD12	1:C:278:GLN:NE2	2.27	0.48
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	1.94	0.48
1:C:3713:LYS:O	1:C:3715:LYS:N	2.46	0.48
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.95	0.48
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.48	0.48
1:E:283:ARG:HD2	1:E:290:TYR:CZ	2.48	0.48
1:E:2532:ALA:HA	1:E:2550:LEU:HD22	1.94	0.48
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.12	0.48
1:E:4713:SER:OG	1:E:4775:TYR:OH	2.31	0.48
1:G:4983:HIS:O	1:G:4985:LEU:N	2.46	0.48
1:A:597:HIS:NE2	1:A:598:LYS:NZ	2.61	0.48
1:A:2063:LEU:HD13	1:A:3661:TRP:CZ3	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4147:LEU:HD21	1:A:4163:PHE:HE2	1.77	0.48
1:A:4977:THR:O	1:A:4981:GLU:N	2.46	0.48
1:C:546:TRP:O	1:C:550:LYS:HG2	2.13	0.48
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.94	0.48
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.95	0.48
1:E:1951:LEU:HD22	1:E:2133:GLU:HG2	1.96	0.48
1:E:2821:TRP:CD1	1:E:2939:ARG:HA	2.48	0.48
1:E:4680:LYS:O	1:E:4685:GLY:N	2.43	0.48
1:G:256:ALA:HB3	1:G:481:GLU:OE2	2.13	0.48
1:G:299:LEU:HD22	1:G:378:LEU:HG	1.95	0.48
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.46	0.48
1:G:1089:TYR:HE2	1:G:1091:GLU:OE2	1.95	0.48
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.95	0.48
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.13	0.48
1:A:530:ILE:HG22	1:A:530:ILE:O	2.14	0.48
1:A:674:PHE:O	2:B:40:ARG:NH1	2.45	0.48
1:A:1293:LEU:HD11	1:A:1598:GLN:HG2	1.94	0.48
1:A:3987:ASP:OD1	1:G:162:LYS:NZ	2.46	0.48
1:C:3669:PHE:O	1:C:3672:ARG:HG2	2.14	0.48
1:C:3835:LEU:CD1	1:C:3884:LEU:HD13	2.42	0.48
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.13	0.48
1:E:102:LEU:HB2	1:E:105:HIS:CE1	2.49	0.48
1:E:291:LEU:HA	1:E:301:VAL:HA	1.94	0.48
1:E:350:HIS:NE2	1:E:352:ALA:HB3	2.27	0.48
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.96	0.48
1:E:1849:LEU:HD13	1:E:1854:PHE:CD2	2.48	0.48
1:G:283:ARG:HD2	1:G:290:TYR:CZ	2.48	0.48
1:G:291:LEU:O	1:G:312:THR:OG1	2.23	0.48
1:G:2143:THR:N	1:G:3651:ASN:OD1	2.47	0.48
1:G:3962:PHE:CE1	1:G:4023:MET:HG3	2.49	0.48
2:H:37:ASP:OD1	2:H:38:SER:N	2.45	0.48
1:A:291:LEU:O	1:A:312:THR:OG1	2.23	0.48
1:A:3959:LYS:HG3	1:A:4022:ASP:OD2	2.13	0.48
1:A:4554:TYR:HA	1:A:4557:ARG:NH1	2.28	0.48
1:A:4827:LEU:HD11	1:G:4843:LEU:HD11	1.93	0.48
1:C:283:ARG:HD2	1:C:290:TYR:CZ	2.48	0.48
1:C:597:HIS:HB2	1:C:1665:HIS:CD2	2.47	0.48
1:C:2063:LEU:HD13	1:C:3661:TRP:CZ3	2.49	0.48
1:E:256:ALA:HB3	1:E:481:GLU:OE2	2.14	0.48
1:E:1293:LEU:HD11	1:E:1598:GLN:HG2	1.94	0.48
1:E:3839:CYS:SG	1:E:3881:THR:HB	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4640:GLU:HB3	1:E:4641:PRO:HD3	1.95	0.48
1:G:931:THR:CB	1:G:988:LEU:HD22	2.43	0.48
1:G:1457:TYR:CZ	1:G:1553:PHE:CE1	3.02	0.48
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.13	0.48
1:G:3969:ILE:O	1:G:3969:ILE:HG22	2.13	0.48
1:G:4562:LEU:HD21	1:G:4656:LEU:HD12	1.95	0.48
1:A:42:PHE:CE1	1:A:114:SER:HB2	2.49	0.48
1:A:3835:LEU:CD1	1:A:3884:LEU:HD13	2.42	0.48
1:A:3958:ALA:CB	1:A:4019:LEU:HD11	2.40	0.48
1:A:4680:LYS:O	1:A:4685:GLY:N	2.43	0.48
1:A:4713:SER:OG	1:A:4775:TYR:OH	2.31	0.48
1:C:222:LEU:HD22	1:C:231:LEU:HD23	1.95	0.48
1:C:2124:LEU:HD21	1:C:3677:LEU:HD21	1.96	0.48
1:C:3884:LEU:O	1:C:3887:PHE:HB3	2.14	0.48
1:C:3969:ILE:HG23	1:C:3977:GLN:HG2	1.94	0.48
1:E:546:TRP:O	1:E:550:LYS:HG2	2.13	0.48
1:E:597:HIS:NE2	1:E:598:LYS:NZ	2.61	0.48
1:E:931:THR:CB	1:E:988:LEU:HD22	2.43	0.48
1:E:1243:PRO:CD	1:E:1458:HIS:HB3	2.38	0.48
1:E:3884:LEU:O	1:E:3887:PHE:HB3	2.14	0.48
1:E:4933:GLN:O	1:E:4937:ILE:HG12	2.14	0.48
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.78	0.48
1:G:215:THR:CG2	1:G:273:HIS:HD2	2.27	0.48
1:G:222:LEU:HD22	1:G:231:LEU:HD23	1.95	0.48
1:G:274:LEU:HD12	1:G:278:GLN:NE2	2.27	0.48
1:G:645:ARG:NH1	1:G:824:GLU:OE2	2.47	0.48
1:G:712:TYR:HB3	1:G:768:PHE:CE1	2.48	0.48
1:G:1259:ARG:HH12	1:G:1597:VAL:HA	1.77	0.48
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.95	0.48
1:G:4705:VAL:HG22	1:G:4711:PHE:HD1	1.77	0.48
2:H:25:HIS:CG	2:H:40:ARG:HE	2.30	0.48
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.94	0.48
1:A:3969:ILE:HG23	1:A:3977:GLN:HG2	1.95	0.48
1:A:4041:ALA:O	1:A:4044:MET:HB3	2.14	0.48
1:A:4235:VAL:HG11	1:A:5019:TRP:HH2	1.79	0.48
1:C:224:HIS:HE1	1:C:386:ASP:HA	1.79	0.48
1:C:308:HIS:CE1	1:C:311:ALA:HB2	2.49	0.48
1:C:495:ASN:HB3	1:C:553:ARG:HH12	1.77	0.48
1:C:530:ILE:HG22	1:C:530:ILE:O	2.13	0.48
1:C:1227:ALA:HA	1:C:1230:MET:HB2	1.94	0.48
1:C:1671:ARG:NH1	1:C:1713:ASP:OD2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1951:LEU:HD22	1:C:2133:GLU:HG2	1.95	0.48
1:C:2155:LEU:HD13	1:C:2188:ASN:HD22	1.77	0.48
1:C:2821:TRP:CD1	1:C:2939:ARG:HA	2.47	0.48
1:C:3767:GLN:NE2	1:C:3806:ASN:HB3	2.28	0.48
1:C:4041:ALA:O	1:C:4044:MET:HB3	2.14	0.48
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.95	0.48
1:E:3780:LEU:HD12	1:E:3828:PHE:CE1	2.48	0.48
1:E:4703:ARG:O	1:E:4706:LEU:HG	2.14	0.48
1:E:4977:THR:O	1:E:4981:GLU:N	2.45	0.48
1:G:20:VAL:HG12	1:G:204:PRO:HA	1.95	0.48
1:G:415:ILE:HG23	1:G:493:ARG:HD2	1.96	0.48
1:G:1253:PRO:O	1:G:1254:HIS:HB2	2.14	0.48
1:G:4973:HIS:HD2	1:G:4977:THR:HG23	1.78	0.48
1:A:76:ARG:NH2	1:C:3936:TYR:HD1	2.10	0.48
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.49	0.48
1:A:456:SER:HB2	1:A:459:LEU:HD13	1.95	0.48
1:A:2068:GLU:O	1:A:2071:ARG:HB2	2.14	0.48
1:A:2272:PRO:O	1:A:2275:VAL:HB	2.14	0.48
1:A:3805:LEU:O	1:A:3807:GLY:N	2.47	0.48
1:A:3936:TYR:HD1	1:G:76:ARG:NH2	2.10	0.48
1:C:42:PHE:CE1	1:C:114:SER:HB2	2.49	0.48
1:C:3699:HIS:HD2	1:C:3773:ARG:HA	1.79	0.48
1:C:3949:ARG:O	1:C:3952:SER:OG	2.20	0.48
1:C:4772:ASP:OD1	1:C:4773:VAL:N	2.47	0.48
1:E:215:THR:CG2	1:E:273:HIS:HD2	2.26	0.48
1:E:667:MET:HG3	1:E:743:VAL:HG22	1.95	0.48
1:E:701:GLY:O	1:E:1647:CYS:HB3	2.13	0.48
1:E:1958:LEU:HD11	1:E:3657:TYR:HE2	1.78	0.48
1:E:2498:HIS:O	1:E:2501:SER:OG	2.30	0.48
1:G:2068:GLU:O	1:G:2071:ARG:HB2	2.13	0.48
1:G:2161:GLN:O	1:G:2164:SER:OG	2.16	0.48
1:G:2272:PRO:O	1:G:2275:VAL:HB	2.14	0.48
1:G:3998:HIS:O	1:G:4002:LYS:HG2	2.13	0.48
1:G:4791:TYR:O	1:G:4795:TYR:N	2.45	0.48
1:G:4857:ASN:O	1:G:4859:PHE:N	2.46	0.48
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.21	0.48
1:A:1723:ALA:HB1	1:A:1775:HIS:CD2	2.43	0.48
1:A:1958:LEU:HD11	1:A:3657:TYR:HE2	1.79	0.48
1:A:2354:VAL:O	1:A:2358:ILE:HG13	2.14	0.48
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	1.95	0.48
1:A:3674:ILE:HD11	1:A:3728:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3699:HIS:HD2	1:A:3773:ARG:HA	1.79	0.48
1:A:3902:TYR:O	1:A:3906:GLN:N	2.46	0.48
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.94	0.48
1:C:2068:GLU:O	1:C:2071:ARG:HB2	2.14	0.48
1:C:4033:GLY:O	1:C:4189:ARG:NH2	2.37	0.48
1:E:299:LEU:HD22	1:E:378:LEU:HG	1.95	0.48
1:E:540:PHE:HA	1:E:543:ASN:HB2	1.96	0.48
1:E:1078:GLU:HB3	1:E:1081:TYR:CD2	2.48	0.48
1:E:1961:PHE:HZ	1:E:2063:LEU:HD23	1.79	0.48
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	1.95	0.48
1:E:3835:LEU:HD12	1:E:3836:MET:N	2.28	0.48
1:E:4934:GLY:HA3	1:G:4937:ILE:CD1	2.44	0.48
1:G:546:TRP:O	1:G:550:LYS:HG2	2.14	0.48
1:G:4051:SER:OG	1:G:4054:ASN:HB3	2.14	0.48
1:G:5011:TRP:O	1:G:5015:GLN:HG2	2.14	0.48
1:A:150:MET:HG2	1:A:171:LEU:CD2	2.44	0.48
1:A:236:ALA:HA	1:A:242:ARG:HH11	1.79	0.48
1:A:597:HIS:HB2	1:A:1665:HIS:CD2	2.48	0.48
1:A:2107:GLN:NE2	1:A:3680:ALA:O	2.46	0.48
1:A:4118:ASP:HB2	1:A:4122:MET:HB2	1.94	0.48
1:C:556:ALA:HB3	1:C:560:ILE:HD11	1.96	0.48
1:C:1723:ALA:HB1	1:C:1775:HIS:CD2	2.43	0.48
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.95	0.48
1:C:3722:TYR:CZ	1:C:3782:MET:HG3	2.49	0.48
2:D:38:SER:HB3	2:D:41:ASP:OD2	2.14	0.48
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.49	0.48
1:E:415:ILE:HG23	1:E:493:ARG:HD2	1.96	0.48
1:E:2354:VAL:O	1:E:2358:ILE:HG13	2.14	0.48
1:E:2907:PRO:O	1:E:2910:THR:OG1	2.16	0.48
1:E:3958:ALA:CB	1:E:4019:LEU:HD11	2.40	0.48
1:G:15:ARG:N	1:G:18:ASP:OD2	2.47	0.48
1:G:291:LEU:HA	1:G:301:VAL:HA	1.95	0.48
1:G:597:HIS:NE2	1:G:598:LYS:NZ	2.61	0.48
1:G:1100:MET:O	1:G:1125:ASN:HA	2.14	0.48
1:A:494:LEU:HB3	1:A:519:VAL:HG22	1.96	0.47
1:A:835:ARG:NH2	1:A:1093:GLU:OE2	2.43	0.47
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.14	0.47
1:A:3923:LEU:HD12	1:A:3961:VAL:HG12	1.96	0.47
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.14	0.47
2:B:38:SER:HB3	2:B:41:ASP:OD2	2.14	0.47
1:C:350:HIS:NE2	1:C:352:ALA:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:597:HIS:NE2	1:C:598:LYS:NZ	2.61	0.47
1:C:645:ARG:NH1	1:C:824:GLU:OE2	2.47	0.47
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.14	0.47
1:C:3835:LEU:HD12	1:C:3835:LEU:C	2.35	0.47
1:C:3902:TYR:O	1:C:3906:GLN:N	2.46	0.47
1:C:3923:LEU:HD12	1:C:3961:VAL:HG12	1.95	0.47
1:E:17:ASP:HB2	1:E:98:HIS:CE1	2.49	0.47
1:G:2183:GLY:O	1:G:2187:ASN:ND2	2.47	0.47
1:G:4901:ILE:HG21	1:G:4913:ARG:NH2	2.29	0.47
1:A:1972:ASN:O	1:A:1975:SER:OG	2.27	0.47
1:A:3884:LEU:O	1:A:3887:PHE:HB3	2.14	0.47
1:A:3989:VAL:O	1:A:3993:LEU:HG	2.14	0.47
1:C:3989:VAL:O	1:C:3993:LEU:HG	2.14	0.47
1:C:4035:VAL:HG12	1:C:4036:VAL:N	2.28	0.47
1:E:12:GLN:O	1:E:165:VAL:HG23	2.14	0.47
1:E:530:ILE:O	1:E:530:ILE:HG22	2.13	0.47
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.14	0.47
1:E:3699:HIS:HD2	1:E:3773:ARG:HA	1.79	0.47
1:E:3713:LYS:O	1:E:3715:LYS:N	2.45	0.47
1:E:3817:LEU:HD13	1:E:3899:PHE:HD1	1.78	0.47
1:E:4772:ASP:OD1	1:E:4773:VAL:N	2.47	0.47
1:G:224:HIS:HE1	1:G:386:ASP:HA	1.79	0.47
1:G:2145:SER:HB3	1:G:3647:HIS:CD2	2.49	0.47
1:G:4984:ASN:HD21	1:G:4987:ASN:ND2	2.12	0.47
1:A:350:HIS:NE2	1:A:352:ALA:HB3	2.29	0.47
1:A:567:VAL:O	1:A:571:SER:OG	2.21	0.47
1:A:2068:GLU:OE1	1:A:2068:GLU:N	2.45	0.47
1:A:4695:ASP:OD1	1:A:4696:ASP:N	2.47	0.47
1:C:15:ARG:N	1:C:18:ASP:OD2	2.47	0.47
1:C:76:ARG:NH2	1:E:3936:TYR:HD1	2.10	0.47
1:C:415:ILE:HG23	1:C:493:ARG:HD2	1.97	0.47
1:C:1961:PHE:HZ	1:C:2063:LEU:HD23	1.79	0.47
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	1.97	0.47
1:C:3647:HIS:O	1:C:3651:ASN:ND2	2.46	0.47
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.97	0.47
1:E:2063:LEU:HD13	1:E:3661:TRP:CZ3	2.49	0.47
1:E:2272:PRO:O	1:E:2275:VAL:HB	2.14	0.47
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.35	0.47
1:G:17:ASP:HB2	1:G:98:HIS:CE1	2.49	0.47
1:G:462:GLU:HG3	1:G:3823:LYS:NZ	2.29	0.47
1:G:667:MET:HG3	1:G:743:VAL:HG22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:215:THR:CG2	1:A:273:HIS:HD2	2.27	0.47
1:A:224:HIS:HE1	1:A:386:ASP:HA	1.79	0.47
1:A:516:LYS:HG3	1:A:555:GLU:OE2	2.14	0.47
1:A:1253:PRO:O	1:A:1254:HIS:HB2	2.14	0.47
1:A:1586:ASN:O	1:A:1588:ALA:N	2.46	0.47
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.96	0.47
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.96	0.47
1:A:3722:TYR:CZ	1:A:3782:MET:HG3	2.49	0.47
1:A:3835:LEU:HD12	1:A:3836:MET:N	2.29	0.47
1:C:299:LEU:HD22	1:C:378:LEU:HG	1.95	0.47
1:C:3992:PHE:HB3	1:C:3996:PHE:CE2	2.49	0.47
1:E:274:LEU:HD12	1:E:278:GLN:NE2	2.27	0.47
1:E:2124:LEU:HD21	1:E:3677:LEU:HD21	1.97	0.47
1:E:2354:VAL:HB	1:E:2453:ILE:HD11	1.97	0.47
1:E:3989:VAL:HG12	1:E:4047:MET:HE1	1.96	0.47
1:E:4041:ALA:O	1:E:4044:MET:HB3	2.14	0.47
1:G:308:HIS:CE1	1:G:311:ALA:HB2	2.49	0.47
1:G:530:ILE:O	1:G:530:ILE:HG22	2.13	0.47
1:G:1586:ASN:O	1:G:1588:ALA:N	2.46	0.47
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.48	0.47
1:G:3993:LEU:HA	1:G:3996:PHE:HB2	1.96	0.47
1:G:4164:LEU:HD23	1:G:4168:GLU:OE2	2.14	0.47
1:G:4702:ASP:HA	1:G:4778:TRP:HE1	1.79	0.47
1:A:645:ARG:NH1	1:A:824:GLU:OE2	2.47	0.47
1:A:1100:MET:O	1:A:1125:ASN:HA	2.14	0.47
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.15	0.47
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.50	0.47
1:A:3992:PHE:HB3	1:A:3996:PHE:CE2	2.49	0.47
1:A:4703:ARG:O	1:A:4706:LEU:HG	2.14	0.47
1:C:572:PRO:HG3	1:C:609:CYS:SG	2.55	0.47
1:C:1100:MET:O	1:C:1125:ASN:HA	2.14	0.47
1:C:1958:LEU:HD11	1:C:3657:TYR:HE2	1.79	0.47
1:C:4242:ILE:HG12	1:C:4993:MET:SD	2.54	0.47
1:E:149:THR:OG1	1:E:172:VAL:HB	2.15	0.47
1:E:1100:MET:O	1:E:1125:ASN:HA	2.14	0.47
1:E:2068:GLU:OE1	1:E:2068:GLU:N	2.45	0.47
1:E:4235:VAL:HG11	1:E:5019:TRP:HH2	1.79	0.47
1:G:1254:HIS:HD2	1:G:1280:GLN:N	2.13	0.47
1:G:2868:SER:O	1:G:2872:GLN:N	2.38	0.47
1:G:4695:ASP:OD1	1:G:4696:ASP:N	2.46	0.47
2:H:25:HIS:CE1	2:H:45:PRO:HG3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:49:MET:N	2:H:54:GLU:OE2	2.48	0.47
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.50	0.47
1:A:2437:ALA:HB3	1:A:2508:ARG:HH21	1.80	0.47
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	1.97	0.47
1:A:4712:PRO:HG2	1:A:4718:LYS:HD2	1.97	0.47
1:C:17:ASP:HB2	1:C:98:HIS:CE1	2.49	0.47
1:C:667:MET:HG3	1:C:743:VAL:HG22	1.95	0.47
1:C:1717:SER:HA	1:C:1721:GLU:HB2	1.97	0.47
1:C:4235:VAL:HG11	1:C:5019:TRP:HH2	1.80	0.47
1:C:4695:ASP:OD1	1:C:4696:ASP:N	2.47	0.47
1:E:645:ARG:NH1	1:E:824:GLU:OE2	2.47	0.47
1:E:1438:ARG:HE	1:E:1440:PHE:HE1	1.63	0.47
1:E:3992:PHE:HB3	1:E:3996:PHE:CE2	2.49	0.47
1:G:572:PRO:HG3	1:G:609:CYS:SG	2.55	0.47
1:G:650:VAL:N	1:G:777:PHE:O	2.47	0.47
1:G:3986:TRP:O	1:G:3990:VAL:HG23	2.15	0.47
1:G:4049:VAL:HA	1:G:4052:SER:HB3	1.95	0.47
1:A:103:TYR:CE2	1:A:163:VAL:HA	2.50	0.47
1:A:421:PHE:HE2	1:A:436:LEU:HD21	1.79	0.47
1:A:667:MET:HG3	1:A:743:VAL:HG22	1.95	0.47
1:A:1254:HIS:HD2	1:A:1280:GLN:N	2.13	0.47
1:A:3669:PHE:O	1:A:3672:ARG:HG2	2.15	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.96	0.47
1:A:4035:VAL:HG12	1:A:4036:VAL:N	2.28	0.47
1:A:4580:TYR:HE1	1:A:4631:PHE:HB2	1.80	0.47
1:A:4940:PHE:HZ	1:G:4931:ILE:HG23	1.80	0.47
1:C:150:MET:HG2	1:C:171:LEU:CD2	2.44	0.47
1:C:206:CYS:HB3	1:C:271:GLY:HA3	1.97	0.47
1:C:898:ASP:OD2	1:C:900:ASN:HB2	2.15	0.47
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.97	0.47
1:C:2165:LEU:HD13	1:C:2174:GLU:HB2	1.97	0.47
1:C:2272:PRO:O	1:C:2275:VAL:HB	2.14	0.47
1:C:2354:VAL:HB	1:C:2453:ILE:HD11	1.97	0.47
1:C:4554:TYR:HA	1:C:4557:ARG:NH1	2.29	0.47
1:C:4703:ARG:O	1:C:4706:LEU:HG	2.14	0.47
1:C:4934:GLY:HA3	1:E:4937:ILE:HD13	1.94	0.47
1:C:4942:GLU:HG3	1:E:4944:ARG:HD2	1.97	0.47
1:E:421:PHE:HE2	1:E:436:LEU:HD21	1.80	0.47
1:E:516:LYS:HG3	1:E:555:GLU:OE2	2.14	0.47
1:E:1293:LEU:HB3	1:E:1584:ARG:HG2	1.95	0.47
1:E:3674:ILE:HD11	1:E:3728:ILE:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3829:PHE:CD2	1:E:3915:ILE:HD11	2.50	0.47
1:E:3989:VAL:O	1:E:3993:LEU:HG	2.14	0.47
1:G:236:ALA:HA	1:G:242:ARG:HH11	1.79	0.47
1:G:516:LYS:HG3	1:G:555:GLU:OE2	2.14	0.47
1:G:1076:ARG:HG2	1:G:1077:ALA:O	2.15	0.47
1:G:1453:VAL:HG12	1:G:1454:THR:O	2.15	0.47
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.95	0.47
1:G:2862:LEU:HD21	1:G:2929:PHE:HB2	1.96	0.47
1:G:3661:TRP:O	1:G:3664:THR:HG23	2.14	0.47
1:G:3805:LEU:HB2	1:G:3890:LEU:HD23	1.96	0.47
1:G:4235:VAL:HG22	1:G:4992:LEU:HD11	1.97	0.47
1:G:4834:GLY:HA2	1:G:4837:LEU:HB3	1.97	0.47
1:G:4931:ILE:O	1:G:4935:LEU:N	2.45	0.47
1:A:195:PHE:HD1	1:C:2358:ILE:CG2	2.27	0.47
1:A:2498:HIS:O	1:A:2501:SER:OG	2.30	0.47
1:A:2557:ALA:C	1:A:2560:PRO:HD2	2.35	0.47
1:C:421:PHE:HE2	1:C:436:LEU:HD21	1.80	0.47
1:C:462:GLU:HG3	1:C:3823:LYS:NZ	2.28	0.47
1:C:567:VAL:O	1:C:571:SER:OG	2.21	0.47
1:C:3829:PHE:CD2	1:C:3915:ILE:HD11	2.50	0.47
1:C:3938:SER:HA	1:C:4002:LYS:HZ3	1.80	0.47
1:C:4044:MET:HG3	1:C:4150:LEU:HD11	1.96	0.47
1:C:4713:SER:OG	1:C:4775:TYR:OH	2.32	0.47
1:E:214:VAL:HG21	1:E:390:LEU:HD12	1.97	0.47
1:E:224:HIS:HE1	1:E:386:ASP:HA	1.79	0.47
1:E:556:ALA:HB3	1:E:560:ILE:HD11	1.97	0.47
1:E:3722:TYR:CZ	1:E:3782:MET:HG3	2.49	0.47
1:E:4044:MET:HG3	1:E:4150:LEU:HD11	1.96	0.47
1:G:4923:PHE:O	1:G:4928:LEU:HG	2.15	0.47
1:G:4968:PHE:CE2	1:G:4978:HIS:CD2	3.03	0.47
1:A:149:THR:OG1	1:A:172:VAL:HB	2.14	0.47
1:A:540:PHE:HA	1:A:543:ASN:HB2	1.96	0.47
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.79	0.47
1:A:2902:HIS:H	1:A:2905:LEU:HD12	1.80	0.47
1:A:3998:HIS:O	1:A:4002:LYS:HG2	2.15	0.47
1:A:4242:ILE:HG12	1:A:4993:MET:SD	2.54	0.47
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.19	0.47
1:C:4036:VAL:HG12	1:C:4037:ASN:N	2.30	0.47
1:E:150:MET:HG2	1:E:171:LEU:CD2	2.45	0.47
1:E:3923:LEU:HD12	1:E:3961:VAL:HG12	1.96	0.47
1:E:4712:PRO:HG2	1:E:4718:LYS:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:38:SER:HB3	2:F:41:ASP:OD2	2.14	0.47
1:G:350:HIS:NE2	1:G:352:ALA:HB3	2.29	0.47
1:G:2755:ILE:HD13	1:G:2810:LYS:HG2	1.97	0.47
1:G:4684:ASP:OD2	1:G:4686:LEU:HD23	2.14	0.47
1:A:299:LEU:HD22	1:A:378:LEU:HG	1.96	0.47
1:A:556:ALA:HB3	1:A:560:ILE:HD11	1.97	0.47
1:A:1076:ARG:HG2	1:A:1077:ALA:O	2.15	0.47
1:A:1717:SER:HA	1:A:1721:GLU:HB2	1.97	0.47
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.97	0.47
1:A:1951:LEU:HD22	1:A:2133:GLU:HG2	1.96	0.47
1:A:1961:PHE:HZ	1:A:2063:LEU:HD23	1.79	0.47
1:A:2189:LYS:HD2	1:A:2192:TYR:HD2	1.79	0.47
1:A:2358:ILE:CG2	1:G:195:PHE:HD1	2.27	0.47
1:C:456:SER:HB2	1:C:459:LEU:HD13	1.95	0.47
1:E:42:PHE:CE1	1:E:114:SER:HB2	2.49	0.47
1:E:1717:SER:HA	1:E:1721:GLU:HB2	1.97	0.47
1:E:3835:LEU:HD12	1:E:3835:LEU:C	2.35	0.47
1:G:58:VAL:HG22	1:G:305:CYS:HA	1.96	0.47
1:G:150:MET:HG2	1:G:171:LEU:CD2	2.45	0.47
1:G:668:VAL:HG12	1:G:740:PRO:HA	1.97	0.47
1:G:1293:LEU:HB3	1:G:1584:ARG:HG2	1.96	0.47
1:G:1961:PHE:CZ	1:G:2063:LEU:HD23	2.50	0.47
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.50	0.47
1:A:58:VAL:HG22	1:A:305:CYS:HA	1.97	0.46
1:A:572:PRO:HG3	1:A:609:CYS:SG	2.55	0.46
1:A:2238:TYR:O	1:A:2242:ILE:HG23	2.15	0.46
1:A:2354:VAL:HB	1:A:2453:ILE:HD11	1.97	0.46
1:C:58:VAL:HG22	1:C:305:CYS:HA	1.97	0.46
1:C:102:LEU:HB2	1:C:105:HIS:CE1	2.50	0.46
1:C:149:THR:OG1	1:C:172:VAL:HB	2.14	0.46
1:C:236:ALA:HA	1:C:242:ARG:HH11	1.79	0.46
1:C:1093:GLU:HA	1:C:1148:VAL:HG22	1.97	0.46
1:C:1100:MET:HB3	1:C:1102:VAL:HG23	1.97	0.46
1:C:1230:MET:SD	1:C:1828:ASP:HA	2.55	0.46
1:C:1438:ARG:HE	1:C:1440:PHE:HE1	1.63	0.46
1:C:4661:TYR:CE1	1:C:4665:LYS:HB2	2.50	0.46
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.21	0.46
1:E:898:ASP:OD2	1:E:900:ASN:HB2	2.15	0.46
1:E:1433:TYR:CE1	1:E:1578:ALA:HB3	2.51	0.46
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.50	0.46
1:G:149:THR:OG1	1:G:172:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2354:VAL:O	1:G:2358:ILE:HG13	2.14	0.46
1:G:2557:ALA:C	1:G:2560:PRO:HD2	2.35	0.46
1:G:3980:LEU:O	1:G:3983:SER:OG	2.27	0.46
1:G:4150:LEU:O	1:G:4154:VAL:HG12	2.15	0.46
1:G:4957:LYS:HG2	1:G:4958:CYS:O	2.15	0.46
1:A:17:ASP:HB2	1:A:98:HIS:CE1	2.49	0.46
1:A:1671:ARG:NH1	1:A:1713:ASP:OD2	2.48	0.46
1:A:2742:THR:OG1	1:A:2811:GLU:OE1	2.28	0.46
1:A:3802:ILE:HD12	1:A:3886:ARG:HG3	1.97	0.46
1:E:1100:MET:HB3	1:E:1102:VAL:HG23	1.98	0.46
1:E:1687:SER:HB3	2:F:90:ILE:HG12	1.97	0.46
1:E:1770:SER:OG	1:E:1771:LEU:N	2.40	0.46
1:E:4661:TYR:CE1	1:E:4665:LYS:HB2	2.51	0.46
1:G:102:LEU:HB2	1:G:105:HIS:CE1	2.50	0.46
1:G:170:ILE:HD12	1:G:197:GLN:HB2	1.97	0.46
1:G:421:PHE:HE2	1:G:436:LEU:HD21	1.80	0.46
1:G:839:LEU:HD13	1:G:1075:PHE:CG	2.51	0.46
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.98	0.46
1:G:4172:GLU:HA	1:G:4175:ARG:HH12	1.79	0.46
1:G:4653:VAL:HA	1:G:4656:LEU:HG	1.97	0.46
1:A:546:TRP:O	1:A:550:LYS:HG2	2.14	0.46
1:A:4036:VAL:HG12	1:A:4037:ASN:N	2.30	0.46
1:C:34:LYS:N	1:C:53:SER:OG	2.48	0.46
1:C:681:HIS:H	1:C:784:SER:HB3	1.81	0.46
1:C:2354:VAL:O	1:C:2358:ILE:HG13	2.15	0.46
1:C:2557:ALA:C	1:C:2560:PRO:HD2	2.36	0.46
1:C:3998:HIS:O	1:C:4002:LYS:HG2	2.16	0.46
1:E:283:ARG:NE	1:E:288:GLY:O	2.48	0.46
1:E:456:SER:HB2	1:E:459:LEU:HD13	1.96	0.46
1:E:839:LEU:HD13	1:E:1075:PHE:CG	2.51	0.46
1:E:1439:VAL:HG12	1:E:1441:ALA:H	1.80	0.46
1:E:2165:LEU:HD13	1:E:2174:GLU:HB2	1.97	0.46
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.79	0.46
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.50	0.46
1:E:3798:LEU:HD11	1:E:3884:LEU:HD12	1.97	0.46
1:E:3998:HIS:O	1:E:4002:LYS:HG2	2.15	0.46
1:E:4036:VAL:HG12	1:E:4037:ASN:N	2.30	0.46
1:E:5013:MET:HG3	1:E:5018:CYS:HB2	1.97	0.46
1:G:42:PHE:CE1	1:G:114:SER:HB2	2.49	0.46
1:G:556:ALA:HB3	1:G:560:ILE:HD11	1.97	0.46
1:G:993:HIS:CE1	1:G:1020:ARG:HB3	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2165:LEU:HD13	1:G:2174:GLU:HB2	1.97	0.46
1:G:2189:LYS:HD2	1:G:2192:TYR:HD2	1.80	0.46
1:G:2498:HIS:O	1:G:2501:SER:OG	2.30	0.46
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.51	0.46
1:G:4682:GLU:CD	1:G:4723:LYS:NZ	2.68	0.46
1:A:283:ARG:NE	1:A:288:GLY:O	2.49	0.46
1:A:462:GLU:HG3	1:A:3823:LYS:HZ3	1.78	0.46
1:A:1230:MET:SD	1:A:1828:ASP:HA	2.55	0.46
1:A:2165:LEU:HD13	1:A:2174:GLU:HB2	1.97	0.46
1:A:4772:ASP:OD1	1:A:4773:VAL:N	2.47	0.46
1:C:162:LYS:NZ	1:E:3987:ASP:OD1	2.46	0.46
1:C:588:SER:O	1:C:592:LYS:HG3	2.16	0.46
1:C:1076:ARG:HG2	1:C:1077:ALA:O	2.15	0.46
1:C:1453:VAL:HG12	1:C:1454:THR:O	2.15	0.46
1:C:2133:GLU:HA	1:C:2136:ARG:HE	1.80	0.46
1:E:1230:MET:SD	1:E:1828:ASP:HA	2.55	0.46
1:E:1671:ARG:NH1	1:E:1713:ASP:OD2	2.48	0.46
1:E:2238:TYR:O	1:E:2242:ILE:HG23	2.15	0.46
2:F:55:VAL:HG23	2:F:60:GLU:HB2	1.98	0.46
1:G:4047:MET:HG3	1:G:4048:LEU:N	2.30	0.46
1:A:34:LYS:N	1:A:53:SER:OG	2.48	0.46
1:A:162:LYS:NZ	1:C:3987:ASP:OD1	2.49	0.46
1:A:473:ASN:O	1:A:477:LEU:HG	2.16	0.46
1:A:1206:GLN:O	1:A:1209:SER:OG	2.18	0.46
1:A:3835:LEU:HD12	1:A:3835:LEU:C	2.36	0.46
1:A:4968:PHE:CE2	1:A:4978:HIS:CD2	3.03	0.46
1:C:125:ARG:HG2	1:C:134:ASP:OD2	2.16	0.46
1:C:214:VAL:HG21	1:C:390:LEU:HD12	1.97	0.46
1:C:3674:ILE:HD11	1:C:3728:ILE:HG22	1.96	0.46
1:C:4149:ASN:OD1	1:C:4153:HIS:HD2	1.98	0.46
1:E:58:VAL:HG22	1:E:305:CYS:HA	1.97	0.46
1:E:206:CYS:HB3	1:E:271:GLY:HA3	1.97	0.46
1:E:2068:GLU:O	1:E:2071:ARG:HB2	2.14	0.46
1:E:2145:SER:HB3	1:E:3647:HIS:CD2	2.51	0.46
1:E:2437:ALA:HB3	1:E:2508:ARG:HH21	1.79	0.46
1:E:4149:ASN:OD1	1:E:4153:HIS:HD2	1.99	0.46
1:E:4242:ILE:HG12	1:E:4993:MET:SD	2.55	0.46
1:E:4968:PHE:CE2	1:E:4978:HIS:CD2	3.03	0.46
2:F:27:THR:HA	2:F:38:SER:HA	1.97	0.46
1:G:473:ASN:O	1:G:477:LEU:HG	2.16	0.46
1:G:540:PHE:HA	1:G:543:ASN:HB2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1093:GLU:HA	1:G:1148:VAL:HG22	1.97	0.46
1:G:2238:TYR:O	1:G:2242:ILE:HG23	2.15	0.46
1:G:2437:ALA:HB3	1:G:2508:ARG:HH21	1.80	0.46
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.96	0.46
1:G:3713:LYS:O	1:G:3715:LYS:N	2.47	0.46
1:G:4772:ASP:OD1	1:G:4773:VAL:N	2.48	0.46
1:A:400:ALA:O	1:A:404:ILE:HG13	2.16	0.46
1:A:650:VAL:N	1:A:777:PHE:O	2.47	0.46
1:A:692:TYR:CD1	1:A:711:LEU:HD21	2.51	0.46
1:A:839:LEU:HD13	1:A:1075:PHE:CG	2.51	0.46
1:A:1453:VAL:HG12	1:A:1454:THR:O	2.15	0.46
1:A:2788:HIS:CG	1:A:2789:PRO:HD2	2.51	0.46
1:A:4044:MET:HG3	1:A:4150:LEU:HD11	1.97	0.46
1:C:839:LEU:HD13	1:C:1075:PHE:CG	2.51	0.46
1:C:1433:TYR:CE1	1:C:1578:ALA:HB3	2.51	0.46
1:E:31:GLU:HA	1:E:32:GLN:HA	1.71	0.46
1:E:572:PRO:HG3	1:E:609:CYS:SG	2.55	0.46
1:E:681:HIS:H	1:E:784:SER:HB3	1.81	0.46
1:E:1453:VAL:HG12	1:E:1454:THR:O	2.15	0.46
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.96	0.46
1:E:4815:ASP:O	1:E:4819:GLY:N	2.46	0.46
1:G:1438:ARG:HE	1:G:1440:PHE:HE1	1.63	0.46
1:G:1717:SER:HA	1:G:1721:GLU:HB2	1.98	0.46
1:G:2354:VAL:HB	1:G:2453:ILE:HD11	1.97	0.46
1:G:4165:GLU:HA	1:G:4168:GLU:HG2	1.97	0.46
1:A:125:ARG:HG2	1:A:134:ASP:OD2	2.16	0.46
1:A:1438:ARG:HE	1:A:1440:PHE:HE1	1.63	0.46
1:A:2183:GLY:O	1:A:2187:ASN:ND2	2.49	0.46
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.50	0.46
1:C:2189:LYS:HD2	1:C:2192:TYR:HD2	1.80	0.46
1:C:2437:ALA:HB3	1:C:2508:ARG:HH21	1.80	0.46
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.51	0.46
1:E:1121:ALA:O	1:E:1133:HIS:ND1	2.49	0.46
1:E:3645:PRO:HB2	1:E:3648:ARG:HB3	1.98	0.46
1:E:4957:LYS:HG2	1:E:4958:CYS:O	2.16	0.46
1:G:283:ARG:NE	1:G:288:GLY:O	2.48	0.46
1:G:356:TRP:O	1:G:378:LEU:HA	2.16	0.46
1:G:1641:ILE:O	1:G:1645:ASN:N	2.49	0.46
1:G:1951:LEU:HD22	1:G:2133:GLU:HG2	1.98	0.46
1:A:170:ILE:HD12	1:A:197:GLN:HB2	1.98	0.46
1:A:606:LEU:HB3	1:A:617:ASN:HD21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.51	0.46
1:A:3371:LYS:HA	1:A:3374:ALA:HB3	1.98	0.46
2:B:92:PRO:HG2	2:B:95:ALA:HB2	1.98	0.46
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.51	0.46
1:C:452:PHE:HB3	1:C:528:SER:HB3	1.98	0.46
1:C:692:TYR:CD1	1:C:711:LEU:HD21	2.51	0.46
1:C:2145:SER:HB3	1:C:3647:HIS:CD2	2.51	0.46
1:C:2238:TYR:O	1:C:2242:ILE:HG23	2.15	0.46
1:C:4684:ASP:OD2	1:C:4686:LEU:HB3	2.15	0.46
1:E:125:ARG:HG2	1:E:134:ASP:OD2	2.16	0.46
1:E:1237:TRP:CH2	1:E:1655:GLU:HB3	2.51	0.46
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.16	0.46
1:E:2183:GLY:O	1:E:2187:ASN:ND2	2.49	0.46
1:E:2557:ALA:C	1:E:2560:PRO:HD2	2.36	0.46
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	1.97	0.46
1:E:4154:VAL:HG13	1:E:4154:VAL:O	2.16	0.46
1:G:403:MET:HE2	1:G:448:LEU:HD23	1.96	0.46
1:G:588:SER:O	1:G:592:LYS:HG3	2.16	0.46
1:G:1121:ALA:O	1:G:1133:HIS:ND1	2.49	0.46
1:G:1687:SER:HB3	2:H:90:ILE:HG12	1.96	0.46
1:G:2139:PRO:HG3	1:G:3658:LYS:NZ	2.31	0.46
1:G:4686:LEU:O	1:G:4691:GLN:N	2.41	0.46
1:A:102:LEU:HB2	1:A:105:HIS:CE1	2.50	0.46
1:A:588:SER:O	1:A:592:LYS:HG3	2.16	0.46
1:A:1121:ALA:O	1:A:1133:HIS:ND1	2.49	0.46
1:A:1439:VAL:HG12	1:A:1441:ALA:H	1.80	0.46
1:A:1687:SER:HB3	2:B:90:ILE:HG12	1.97	0.46
1:A:3829:PHE:CD2	1:A:3915:ILE:HD11	2.50	0.46
1:A:4675:LYS:HG3	1:A:4715:TYR:HE1	1.81	0.46
1:A:5013:MET:HG3	1:A:5018:CYS:HB2	1.98	0.46
1:C:1237:TRP:CH2	1:C:1655:GLU:HB3	2.51	0.46
1:C:1439:VAL:HG12	1:C:1441:ALA:H	1.80	0.46
1:C:2742:THR:OG1	1:C:2811:GLU:OE1	2.28	0.46
1:C:2788:HIS:CG	1:C:2789:PRO:HD2	2.51	0.46
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.50	0.46
1:C:4023:MET:O	1:C:4026:MET:HG2	2.16	0.46
1:E:34:LYS:N	1:E:53:SER:OG	2.48	0.46
1:E:170:ILE:HD12	1:E:197:GLN:HB2	1.98	0.46
1:E:291:LEU:O	1:E:312:THR:OG1	2.23	0.46
1:E:403:MET:HE2	1:E:448:LEU:HD23	1.96	0.46
1:E:4901:ILE:HG21	1:E:4913:ARG:HH21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:456:SER:HB2	1:G:459:LEU:HD13	1.97	0.46
1:G:1230:MET:SD	1:G:1828:ASP:HA	2.55	0.46
1:G:1433:TYR:CE1	1:G:1578:ALA:HB3	2.51	0.46
1:G:3889:GLN:O	1:G:3893:GLU:HG3	2.16	0.46
1:A:736:HIS:NE2	1:A:739:ALA:HB2	2.31	0.46
1:A:737:LEU:HB3	1:A:738:LEU:H	1.46	0.46
1:C:231:LEU:HD11	1:C:245:VAL:CG1	2.46	0.46
1:C:516:LYS:HG3	1:C:555:GLU:OE2	2.15	0.46
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.81	0.46
1:C:1687:SER:HB3	2:D:90:ILE:HG12	1.98	0.46
1:C:3891:LEU:HB3	1:C:3899:PHE:HE2	1.81	0.46
1:C:4154:VAL:HG13	1:C:4154:VAL:O	2.16	0.46
1:C:4221:VAL:O	1:C:4225:GLY:N	2.43	0.46
1:C:4675:LYS:HG3	1:C:4715:TYR:HE1	1.81	0.46
1:E:356:TRP:O	1:E:378:LEU:HA	2.16	0.46
1:E:1076:ARG:HG2	1:E:1077:ALA:O	2.15	0.46
1:E:1093:GLU:HA	1:E:1148:VAL:HG22	1.97	0.46
1:E:4181:ILE:HD11	1:E:4193:ILE:HD11	1.98	0.46
1:G:206:CYS:HB3	1:G:271:GLY:HA3	1.97	0.46
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.51	0.46
1:G:909:ASN:O	1:G:912:SER:OG	2.28	0.46
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.81	0.46
1:G:2068:GLU:OE1	1:G:2068:GLU:N	2.46	0.46
1:G:2106:ALA:HB1	1:G:3700:GLN:HG3	1.96	0.46
1:A:356:TRP:O	1:A:378:LEU:HA	2.16	0.45
1:A:1100:MET:HB3	1:A:1102:VAL:HG23	1.98	0.45
1:A:1433:TYR:CE1	1:A:1578:ALA:HB3	2.51	0.45
1:A:3645:PRO:HB2	1:A:3648:ARG:HB3	1.98	0.45
1:A:3817:LEU:HD11	1:A:3821:LYS:HZ2	1.79	0.45
1:A:4023:MET:O	1:A:4026:MET:HG2	2.16	0.45
1:A:4149:ASN:OD1	1:A:4153:HIS:HD2	1.98	0.45
1:A:4661:TYR:CE1	1:A:4665:LYS:HB2	2.50	0.45
1:A:4684:ASP:OD2	1:A:4686:LEU:HB3	2.16	0.45
1:A:4888:TYR:HD1	1:G:4914:VAL:HG13	1.81	0.45
1:C:650:VAL:N	1:C:777:PHE:O	2.47	0.45
1:C:1641:ILE:O	1:C:1645:ASN:N	2.49	0.45
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.16	0.45
1:C:2183:GLY:O	1:C:2187:ASN:ND2	2.49	0.45
1:E:1518:CYS:SG	1:E:1528:THR:N	2.85	0.45
1:E:2189:LYS:HD2	1:E:2192:TYR:HD2	1.80	0.45
1:G:231:LEU:HD11	1:G:245:VAL:CG1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:606:LEU:HB3	1:G:617:ASN:HD21	1.82	0.45
1:G:681:HIS:H	1:G:784:SER:HB3	1.80	0.45
1:G:1100:MET:HB3	1:G:1102:VAL:HG23	1.98	0.45
1:G:1116:GLY:HA3	1:G:1132:TRP:CD1	2.51	0.45
1:G:1701:ALA:HB1	1:G:1830:VAL:HG13	1.98	0.45
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.16	0.45
1:G:4103:PHE:HB2	1:G:4108:ILE:HD11	1.98	0.45
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.51	0.45
1:A:636:ASN:HD21	2:B:35:LYS:NZ	2.15	0.45
1:A:681:HIS:H	1:A:784:SER:HB3	1.81	0.45
1:A:1112:ASP:HA	1:A:1607:ARG:HH11	1.82	0.45
1:A:1641:ILE:O	1:A:1645:ASN:N	2.50	0.45
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.17	0.45
1:A:4837:LEU:CD1	1:A:4932:ILE:HG23	2.45	0.45
1:A:4931:ILE:HG23	1:C:4940:PHE:HZ	1.79	0.45
1:C:170:ILE:HD12	1:C:197:GLN:HB2	1.98	0.45
1:C:195:PHE:HD1	1:E:2358:ILE:CG2	2.27	0.45
1:C:291:LEU:O	1:C:312:THR:OG1	2.23	0.45
1:C:675:LEU:HD23	1:C:676:THR:HG23	1.99	0.45
1:C:4968:PHE:CE2	1:C:4978:HIS:CD2	3.03	0.45
1:E:195:PHE:HD1	1:G:2358:ILE:CG2	2.28	0.45
1:E:236:ALA:HA	1:E:242:ARG:HH11	1.80	0.45
1:E:294:THR:HG22	1:E:296:ASP:H	1.81	0.45
1:E:452:PHE:HB3	1:E:528:SER:HB3	1.98	0.45
1:E:692:TYR:CD1	1:E:711:LEU:HD21	2.51	0.45
1:E:1254:HIS:HD2	1:E:1280:GLN:H	1.64	0.45
1:E:1943:LEU:HD22	1:E:2123:LEU:HD13	1.98	0.45
1:G:125:ARG:HG2	1:G:134:ASP:OD2	2.16	0.45
1:G:607:CYS:SG	1:G:618:GLN:HG2	2.56	0.45
1:G:1581:LEU:HD11	1:G:1595:LEU:HD23	1.98	0.45
1:G:4554:TYR:HA	1:G:4557:ARG:CZ	2.46	0.45
1:G:4678:ALA:HB1	1:G:4720:VAL:HG11	1.97	0.45
1:G:4983:HIS:HE1	1:G:5023:PRO:HG2	1.81	0.45
2:H:54:GLU:HG3	2:H:55:VAL:HG13	1.98	0.45
1:A:206:CYS:HB3	1:A:271:GLY:HA3	1.97	0.45
1:A:452:PHE:HB3	1:A:528:SER:HB3	1.98	0.45
1:A:1116:GLY:HA3	1:A:1132:TRP:CD1	2.51	0.45
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.82	0.45
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.17	0.45
1:A:2758:PHE:HD2	1:A:2809:ILE:HD13	1.81	0.45
1:A:3798:LEU:HD11	1:A:3884:LEU:HD12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:283:ARG:NE	1:C:288:GLY:O	2.49	0.45
1:C:473:ASN:O	1:C:477:LEU:HG	2.15	0.45
1:C:1116:GLY:HA2	1:C:1121:ALA:HB3	1.99	0.45
1:C:1121:ALA:O	1:C:1133:HIS:ND1	2.49	0.45
1:C:2498:HIS:O	1:C:2501:SER:OG	2.30	0.45
1:E:606:LEU:HB3	1:E:617:ASN:HD21	1.81	0.45
1:E:674:PHE:CB	2:F:40:ARG:NH1	2.73	0.45
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	1.99	0.45
1:E:1152:MET:HB2	1:E:1161:ILE:HB	1.98	0.45
1:E:1641:ILE:O	1:E:1645:ASN:N	2.49	0.45
1:E:4023:MET:O	1:E:4026:MET:HG2	2.16	0.45
1:E:4223:ASN:HD21	1:E:4946:GLN:NE2	2.14	0.45
1:A:2333:ASP:O	1:A:2336:ARG:HB3	2.17	0.45
1:C:668:VAL:HG12	1:C:740:PRO:HA	1.98	0.45
1:C:4837:LEU:CD1	1:C:4932:ILE:HG23	2.44	0.45
1:E:231:LEU:HD11	1:E:245:VAL:CG1	2.47	0.45
1:E:588:SER:O	1:E:592:LYS:HG3	2.16	0.45
1:E:675:LEU:HD23	1:E:676:THR:HG23	1.99	0.45
1:E:2788:HIS:CG	1:E:2789:PRO:HD2	2.52	0.45
1:E:3767:GLN:NE2	1:E:3806:ASN:HB3	2.29	0.45
1:E:4857:ASN:O	1:E:4859:PHE:N	2.48	0.45
1:G:400:ALA:O	1:G:404:ILE:HG13	2.17	0.45
1:G:692:TYR:CD1	1:G:711:LEU:HD21	2.51	0.45
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	1.98	0.45
1:G:1439:VAL:HG12	1:G:1441:ALA:H	1.80	0.45
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.52	0.45
1:G:3802:ILE:O	1:G:3806:ASN:N	2.50	0.45
1:A:1093:GLU:HA	1:A:1148:VAL:HG22	1.97	0.45
1:A:1293:LEU:HB3	1:A:1584:ARG:HG2	1.97	0.45
1:A:2347:GLU:O	1:A:2351:ASN:ND2	2.40	0.45
1:A:4836:GLN:HB3	1:C:4826:ILE:HD11	1.98	0.45
1:A:4965:SER:HA	1:A:4975:PHE:CD1	2.52	0.45
1:C:606:LEU:HB3	1:C:617:ASN:HD21	1.82	0.45
1:C:2151:ASP:O	1:C:2154:SER:OG	2.19	0.45
1:C:2758:PHE:HD2	1:C:2809:ILE:HD13	1.81	0.45
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.51	0.45
2:D:92:PRO:HG2	2:D:95:ALA:HB2	1.98	0.45
1:E:400:ALA:O	1:E:404:ILE:HG13	2.17	0.45
1:E:1254:HIS:HD2	1:E:1280:GLN:N	2.13	0.45
1:E:1701:ALA:HB1	1:E:1830:VAL:HG13	1.98	0.45
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4861:LYS:NZ	1:E:4909:TYR:CD2	2.79	0.45
1:E:4901:ILE:HG21	1:E:4913:ARG:NH2	2.31	0.45
1:G:34:LYS:N	1:G:53:SER:OG	2.49	0.45
1:G:214:VAL:HG21	1:G:390:LEU:HD12	1.97	0.45
1:G:294:THR:HG22	1:G:296:ASP:H	1.81	0.45
1:G:452:PHE:HB3	1:G:528:SER:HB3	1.99	0.45
1:G:1943:LEU:HD22	1:G:2123:LEU:HD13	1.98	0.45
1:G:1970:GLN:HA	1:G:1973:GLN:HG2	1.98	0.45
1:G:4661:TYR:CE2	1:G:4789:PHE:HB2	2.51	0.45
1:A:214:VAL:HG21	1:A:390:LEU:HD12	1.97	0.45
1:A:1701:ALA:HB1	1:A:1830:VAL:HG13	1.98	0.45
1:A:1818:ALA:HB1	1:A:1838:PHE:CE1	2.52	0.45
1:A:3780:LEU:HD23	1:A:3819:TYR:CD2	2.52	0.45
1:A:3891:LEU:HB3	1:A:3899:PHE:HE2	1.81	0.45
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.81	0.45
1:C:4888:TYR:O	1:C:4892:ARG:HD3	2.17	0.45
1:C:4965:SER:HA	1:C:4975:PHE:CD1	2.52	0.45
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.81	0.45
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.16	0.45
1:E:2499:LYS:O	1:E:2503:VAL:HG23	2.17	0.45
1:G:15:ARG:HB2	1:G:18:ASP:OD2	2.16	0.45
1:G:675:LEU:HD23	1:G:676:THR:HG23	1.99	0.45
1:G:1237:TRP:CH2	1:G:1655:GLU:HB3	2.51	0.45
1:G:3887:PHE:O	1:G:3891:LEU:HD13	2.17	0.45
1:A:294:THR:HG22	1:A:296:ASP:H	1.82	0.45
1:A:1152:MET:HB2	1:A:1161:ILE:HB	1.98	0.45
1:A:3886:ARG:O	1:A:3890:LEU:HD13	2.17	0.45
1:C:537:CYS:HB3	1:C:571:SER:HB3	1.98	0.45
1:C:736:HIS:NE2	1:C:739:ALA:HB2	2.31	0.45
1:C:1152:MET:HB2	1:C:1161:ILE:HB	1.98	0.45
1:C:1518:CYS:SG	1:C:1528:THR:N	2.85	0.45
1:C:2883:HIS:NE2	1:C:2906:VAL:O	2.35	0.45
1:C:2902:HIS:H	1:C:2905:LEU:HD12	1.82	0.45
1:C:3817:LEU:HD11	1:C:3821:LYS:HZ2	1.78	0.45
1:C:4677:LEU:HD22	1:C:4711:PHE:CE1	2.52	0.45
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.81	0.45
1:C:4836:GLN:HB3	1:E:4826:ILE:HD11	1.99	0.45
1:C:4857:ASN:O	1:C:4859:PHE:N	2.49	0.45
1:C:4928:LEU:HD23	1:C:4931:ILE:HD12	1.97	0.45
1:E:473:ASN:O	1:E:477:LEU:HG	2.16	0.45
1:E:668:VAL:HG12	1:E:740:PRO:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1116:GLY:HA2	1:E:1121:ALA:HB3	1.99	0.45
1:E:2763:HIS:NE2	1:E:2792:ARG:O	2.50	0.45
1:E:3802:ILE:HD12	1:E:3886:ARG:HG3	1.98	0.45
1:E:4684:ASP:OD2	1:E:4686:LEU:HB3	2.16	0.45
1:G:1518:CYS:SG	1:G:1528:THR:N	2.85	0.45
1:G:1734:TYR:HB2	1:G:2141:ALA:HB2	1.98	0.45
1:G:2333:ASP:O	1:G:2336:ARG:HB3	2.16	0.45
1:G:2788:HIS:CG	1:G:2789:PRO:HD2	2.51	0.45
1:A:1579:MET:O	1:A:1582:SER:OG	2.24	0.45
1:A:4662:ASN:HA	1:A:4666:VAL:HG21	1.99	0.45
1:A:4957:LYS:HG2	1:A:4958:CYS:O	2.16	0.45
2:B:27:THR:HA	2:B:38:SER:HA	1.97	0.45
1:C:70:GLU:O	1:C:71:GLN:HG3	2.17	0.45
1:C:356:TRP:O	1:C:378:LEU:HA	2.16	0.45
1:C:1930:LYS:HA	1:C:1930:LYS:HD2	1.82	0.45
1:C:2503:VAL:HG12	1:C:2559:LEU:HD12	1.99	0.45
1:C:3989:VAL:HG12	1:C:4047:MET:HE1	1.99	0.45
1:C:4925:ILE:HG23	1:C:4929:LEU:HD12	1.99	0.45
1:E:70:GLU:O	1:E:71:GLN:HG3	2.17	0.45
1:E:595:ARG:HG2	1:E:1662:PHE:CE1	2.52	0.45
1:E:3371:LYS:HA	1:E:3374:ALA:HB3	1.98	0.45
1:E:3887:PHE:CZ	1:E:3891:LEU:HD11	2.51	0.45
1:E:4675:LYS:HG3	1:E:4715:TYR:HE1	1.81	0.45
1:G:3771:HIS:CE1	1:G:3812:VAL:HA	2.51	0.45
1:G:4044:MET:HG3	1:G:4150:LEU:HD11	1.99	0.45
1:G:4685:GLY:O	1:G:4689:THR:N	2.50	0.45
2:H:78:PRO:HA	2:H:81:ALA:HB3	1.98	0.45
1:A:1930:LYS:HD2	1:A:1930:LYS:HA	1.82	0.45
1:A:1943:LEU:HD22	1:A:2123:LEU:HD13	1.98	0.45
1:A:2159:LEU:HA	1:A:2162:ILE:HG22	1.98	0.45
1:A:4581:LYS:HA	1:G:4856:PHE:CZ	2.51	0.45
1:A:4857:ASN:O	1:A:4859:PHE:N	2.50	0.45
1:A:4861:LYS:NZ	1:A:4909:TYR:CD2	2.79	0.45
1:C:687:ALA:HB2	1:C:711:LEU:HD23	1.99	0.45
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	1.99	0.45
1:C:1116:GLY:HA3	1:C:1132:TRP:CD1	2.52	0.45
1:C:1701:ALA:HB1	1:C:1830:VAL:HG13	1.98	0.45
1:C:2347:GLU:O	1:C:2351:ASN:ND2	2.40	0.45
1:C:5013:MET:HG3	1:C:5018:CYS:HB2	1.98	0.45
2:D:27:THR:HA	2:D:38:SER:HA	1.97	0.45
1:E:69:LEU:HD23	1:E:109:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4662:ASN:HA	1:E:4666:VAL:HG21	1.99	0.45
1:G:1152:MET:HB2	1:G:1161:ILE:HB	1.98	0.45
1:G:1254:HIS:HD2	1:G:1280:GLN:H	1.64	0.45
1:G:1942:LEU:HG	1:G:1946:PHE:HE2	1.81	0.45
1:G:1958:LEU:HD13	1:G:2134:LEU:HD11	1.99	0.45
1:G:3977:GLN:NE2	1:G:4032:GLU:OE2	2.50	0.45
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.97	0.45
1:A:12:GLN:O	1:A:165:VAL:HG23	2.17	0.45
1:A:70:GLU:O	1:A:71:GLN:HG3	2.17	0.45
1:A:1237:TRP:CH2	1:A:1655:GLU:HB3	2.51	0.45
1:A:1581:LEU:HD11	1:A:1595:LEU:HD23	1.99	0.45
1:A:1719:HIS:CD2	1:A:1802:ILE:HG23	2.52	0.45
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.17	0.45
1:A:4723:LYS:HA	1:A:4726:ASP:HB2	1.99	0.45
2:B:36:PHE:CZ	2:B:97:LEU:HD22	2.52	0.45
1:C:1254:HIS:HD2	1:C:1280:GLN:N	2.13	0.45
1:C:2333:ASP:O	1:C:2336:ARG:HB3	2.16	0.45
1:C:3802:ILE:HD12	1:C:3886:ARG:HG3	1.98	0.45
1:C:3886:ARG:O	1:C:3890:LEU:HD13	2.16	0.45
1:C:3927:GLN:NE2	1:C:3988:ALA:HA	2.32	0.45
1:C:4662:ASN:HA	1:C:4666:VAL:HG21	1.99	0.45
1:C:4901:ILE:HG21	1:C:4913:ARG:NH2	2.32	0.45
1:E:15:ARG:HB2	1:E:18:ASP:OD2	2.17	0.45
1:E:736:HIS:HD2	1:E:742:ASP:OD2	2.00	0.45
1:E:736:HIS:NE2	1:E:739:ALA:HB2	2.31	0.45
1:E:1818:ALA:HB1	1:E:1838:PHE:CE1	2.52	0.45
1:E:4677:LEU:HD22	1:E:4711:PHE:CE1	2.52	0.45
1:G:1254:HIS:CE1	1:G:1256:GLU:HB2	2.52	0.45
1:G:4181:ILE:HD11	1:G:4193:ILE:HD11	1.99	0.45
1:A:675:LEU:HD23	1:A:676:THR:HG23	1.98	0.44
1:A:898:ASP:OD2	1:A:900:ASN:HB2	2.16	0.44
1:A:1205:GLY:HA3	1:A:1227:ALA:HB3	1.98	0.44
1:A:2145:SER:HB3	1:A:3647:HIS:CD2	2.51	0.44
1:A:4045:VAL:HG21	1:A:4154:VAL:HG11	1.99	0.44
1:A:4154:VAL:O	1:A:4154:VAL:HG13	2.16	0.44
1:A:4555:LEU:HD11	1:A:4656:LEU:HD13	1.99	0.44
1:C:1112:ASP:HA	1:C:1607:ARG:HH11	1.82	0.44
1:C:1293:LEU:HB3	1:C:1584:ARG:HG2	1.97	0.44
1:C:1719:HIS:CD2	1:C:1802:ILE:HG23	2.52	0.44
1:C:4931:ILE:HG23	1:E:4940:PHE:HZ	1.81	0.44
1:E:687:ALA:HB2	1:E:711:LEU:HD23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:728:ARG:HA	1:E:729:PRO:HD3	1.85	0.44
1:E:993:HIS:CE1	1:E:1020:ARG:HB3	2.48	0.44
1:E:1116:GLY:HA3	1:E:1132:TRP:CD1	2.52	0.44
1:E:1288:PHE:CD1	1:E:1553:PHE:HD1	2.35	0.44
1:E:1942:LEU:HG	1:E:1946:PHE:HE2	1.82	0.44
1:E:2212:VAL:HG21	1:E:2256:TYR:CZ	2.52	0.44
1:E:4045:VAL:HG21	1:E:4154:VAL:HG11	1.98	0.44
1:E:4935:LEU:HB2	1:G:4940:PHE:HE2	1.82	0.44
1:G:69:LEU:HD23	1:G:109:LEU:HD23	1.99	0.44
1:G:70:GLU:O	1:G:71:GLN:HG3	2.17	0.44
1:G:705:ASN:OD1	1:G:706:GLY:N	2.51	0.44
1:G:898:ASP:OD2	1:G:900:ASN:HB2	2.17	0.44
1:G:1719:HIS:CD2	1:G:1802:ILE:HG23	2.52	0.44
1:A:252:VAL:HA	1:A:255:HIS:ND1	2.33	0.44
1:A:495:ASN:C	1:A:553:ARG:HH12	2.21	0.44
1:A:668:VAL:HG12	1:A:740:PRO:HA	1.98	0.44
1:A:692:TYR:CZ	1:A:694:PRO:HG3	2.52	0.44
1:A:1254:HIS:HD2	1:A:1280:GLN:H	1.64	0.44
1:A:2143:THR:HG23	1:A:3654:LEU:HD11	1.99	0.44
1:A:3722:TYR:OH	1:A:3782:MET:HG3	2.18	0.44
1:A:4181:ILE:HD11	1:A:4193:ILE:HD11	1.99	0.44
1:A:4839:MET:HG3	1:C:4822:THR:CG2	2.40	0.44
1:C:62:LEU:HA	1:C:65:CYS:SG	2.57	0.44
1:C:260:TRP:CZ3	1:C:284:HIS:HB2	2.53	0.44
1:C:400:ALA:O	1:C:404:ILE:HG13	2.17	0.44
1:C:595:ARG:HG2	1:C:1662:PHE:CE1	2.52	0.44
1:C:1288:PHE:CD1	1:C:1553:PHE:HD1	2.35	0.44
1:C:1805:GLU:HA	1:C:1808:ARG:HG2	2.00	0.44
1:C:2159:LEU:HA	1:C:2162:ILE:HG22	1.99	0.44
1:C:2210:VAL:O	1:C:2214:VAL:HG23	2.17	0.44
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.17	0.44
1:C:3645:PRO:HB2	1:C:3648:ARG:HB3	1.98	0.44
1:C:3722:TYR:OH	1:C:3782:MET:HG3	2.17	0.44
1:C:3887:PHE:CZ	1:C:3891:LEU:HD11	2.52	0.44
1:C:4861:LYS:NZ	1:C:4909:TYR:CD2	2.79	0.44
1:C:4957:LYS:HG2	1:C:4958:CYS:O	2.16	0.44
1:E:445:LEU:HD23	1:E:521:LEU:HB3	1.99	0.44
1:E:1684:ALA:O	1:E:1687:SER:OG	2.16	0.44
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.17	0.44
1:E:2758:PHE:HD2	1:E:2809:ILE:HD13	1.81	0.44
1:G:403:MET:CE	1:G:448:LEU:HD23	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:595:ARG:HG2	1:G:1662:PHE:CE1	2.52	0.44
1:G:758:ARG:HG2	1:G:763:PRO:HA	1.99	0.44
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.18	0.44
1:A:60:PRO:HD2	1:A:281:ARG:NH2	2.32	0.44
1:A:445:LEU:HD23	1:A:521:LEU:HB3	1.99	0.44
1:A:537:CYS:HB3	1:A:571:SER:HB3	1.99	0.44
1:A:758:ARG:HG2	1:A:763:PRO:HA	2.00	0.44
1:A:1518:CYS:SG	1:A:1528:THR:N	2.85	0.44
1:A:1942:LEU:HG	1:A:1946:PHE:HE2	1.81	0.44
1:C:1942:LEU:HG	1:C:1946:PHE:HE2	1.81	0.44
1:C:1943:LEU:HD22	1:C:2123:LEU:HD13	1.98	0.44
1:C:2812:SER:HG	1:C:2882:TYR:HH	1.63	0.44
2:D:55:VAL:HG23	2:D:60:GLU:HB2	1.98	0.44
1:E:401:ALA:O	1:E:404:ILE:HB	2.18	0.44
1:E:1970:GLN:HA	1:E:1973:GLN:HG2	1.99	0.44
1:E:3886:ARG:O	1:E:3890:LEU:HD13	2.17	0.44
1:E:3889:GLN:O	1:E:3893:GLU:HG3	2.18	0.44
1:E:4695:ASP:OD1	1:E:4696:ASP:N	2.47	0.44
1:E:4965:SER:HA	1:E:4975:PHE:CD1	2.52	0.44
1:G:1112:ASP:HA	1:G:1607:ARG:HH11	1.82	0.44
1:G:1456:ASP:O	1:G:1457:TYR:CB	2.65	0.44
1:G:1581:LEU:HD13	1:G:1594:ARG:C	2.38	0.44
1:G:2114:PRO:HB3	1:G:3707:ARG:HD3	1.99	0.44
1:G:4229:GLU:HB3	1:G:4233:LEU:HG	1.98	0.44
1:G:4934:GLY:HA2	1:G:4937:ILE:HG12	2.00	0.44
2:H:55:VAL:HG23	2:H:60:GLU:HB2	2.00	0.44
1:A:401:ALA:O	1:A:404:ILE:HB	2.18	0.44
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	1.98	0.44
1:A:2503:VAL:HG12	1:A:2559:LEU:HD12	1.98	0.44
1:A:4677:LEU:HD22	1:A:4711:PHE:CE1	2.52	0.44
1:A:4888:TYR:HE1	1:G:4917:ASP:CB	2.31	0.44
1:A:4901:ILE:HG21	1:A:4913:ARG:NH2	2.32	0.44
2:B:55:VAL:HG23	2:B:60:GLU:HB2	1.98	0.44
1:C:554:LEU:HD22	1:C:1596:GLU:HG2	2.00	0.44
1:C:607:CYS:SG	1:C:618:GLN:HG2	2.58	0.44
1:C:736:HIS:HD2	1:C:742:ASP:OD2	2.00	0.44
1:C:2143:THR:HG23	1:C:3654:LEU:HD11	1.99	0.44
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.99	0.44
1:C:3965:LEU:HA	1:C:3968:TYR:HD2	1.83	0.44
1:E:62:LEU:HA	1:E:65:CYS:SG	2.57	0.44
1:E:537:CYS:HB3	1:E:571:SER:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.99	0.44
1:E:2902:HIS:H	1:E:2905:LEU:HD12	1.81	0.44
1:E:4059:LEU:HD22	1:E:4167:ALA:HB2	1.99	0.44
1:G:104:GLY:HA3	1:G:159:GLU:HG2	2.00	0.44
1:G:445:LEU:HD23	1:G:521:LEU:HB3	1.98	0.44
1:G:687:ALA:HB2	1:G:711:LEU:HD23	1.99	0.44
1:G:737:LEU:HD11	2:H:7:ILE:CG2	2.38	0.44
1:G:1660:GLN:NE2	1:G:1704:PRO:HB2	2.32	0.44
1:G:4024:VAL:HA	1:G:4027:LEU:HD12	1.99	0.44
1:G:4045:VAL:HG21	1:G:4154:VAL:HG11	1.99	0.44
1:A:595:ARG:HG2	1:A:1662:PHE:CE1	2.52	0.44
1:A:674:PHE:CB	2:B:40:ARG:NH1	2.72	0.44
1:A:1849:LEU:HD13	1:A:1854:PHE:CD2	2.48	0.44
1:A:3889:GLN:O	1:A:3893:GLU:HG3	2.17	0.44
1:C:15:ARG:HB2	1:C:18:ASP:OD2	2.16	0.44
1:C:1254:HIS:HD2	1:C:1280:GLN:H	1.65	0.44
1:C:1581:LEU:HD13	1:C:1594:ARG:C	2.38	0.44
2:D:36:PHE:CZ	2:D:97:LEU:HD22	2.52	0.44
1:E:342:GLY:N	1:E:390:LEU:O	2.50	0.44
1:E:403:MET:CE	1:E:448:LEU:HD23	2.48	0.44
1:E:1581:LEU:HD13	1:E:1594:ARG:C	2.38	0.44
1:E:1581:LEU:HD11	1:E:1595:LEU:HD23	1.99	0.44
1:E:2151:ASP:O	1:E:2154:SER:OG	2.19	0.44
1:E:2333:ASP:O	1:E:2336:ARG:HB3	2.17	0.44
1:E:3780:LEU:HD23	1:E:3819:TYR:CD2	2.52	0.44
1:E:4934:GLY:CA	1:G:4937:ILE:CD1	2.95	0.44
1:E:5011:TRP:O	1:E:5015:GLN:HG2	2.18	0.44
2:F:92:PRO:HG2	2:F:95:ALA:HB2	1.98	0.44
1:G:293:LEU:HB2	1:G:378:LEU:HD12	2.00	0.44
1:G:1288:PHE:CD1	1:G:1553:PHE:HD1	2.35	0.44
1:G:1723:ALA:HB1	1:G:1775:HIS:CD2	2.43	0.44
1:G:2763:HIS:NE2	1:G:2792:ARG:O	2.51	0.44
1:A:519:VAL:HG12	1:A:523:TYR:HE2	1.83	0.44
1:A:705:ASN:OD1	1:A:706:GLY:N	2.51	0.44
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.53	0.44
1:A:3798:LEU:HD12	1:A:3880:PHE:CE1	2.53	0.44
1:A:3927:GLN:NE2	1:A:3988:ALA:HA	2.32	0.44
1:C:118:LEU:HA	1:C:137:LEU:HD23	2.00	0.44
1:C:1579:MET:O	1:C:1582:SER:OG	2.25	0.44
1:C:1970:GLN:HA	1:C:1973:GLN:HG2	1.99	0.44
1:C:2066:LEU:O	1:C:2070:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:692:TYR:CZ	1:E:694:PRO:HG3	2.52	0.44
1:E:1254:HIS:CD2	1:E:1280:GLN:HB3	2.53	0.44
1:E:2351:ASN:O	1:E:2355:ARG:HG2	2.18	0.44
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.99	0.44
1:E:3722:TYR:OH	1:E:3782:MET:HG3	2.17	0.44
1:E:3927:GLN:HG3	1:E:3928:GLU:N	2.32	0.44
1:E:4057:MET:HA	1:E:4060:LYS:HG2	2.00	0.44
2:F:15:PHE:HE1	2:F:67:SER:HB3	1.83	0.44
1:G:260:TRP:CZ3	1:G:284:HIS:HB2	2.52	0.44
1:G:537:CYS:HB3	1:G:571:SER:HB3	1.99	0.44
1:G:764:VAL:O	1:G:764:VAL:HG12	2.18	0.44
1:G:1254:HIS:CD2	1:G:1280:GLN:HB3	2.53	0.44
1:G:2212:VAL:HG21	1:G:2256:TYR:CZ	2.53	0.44
1:G:2499:LYS:O	1:G:2503:VAL:HG23	2.17	0.44
1:G:2827:ARG:HB2	1:G:2934:GLY:CA	2.47	0.44
1:G:3674:ILE:HD11	1:G:3728:ILE:HG22	1.99	0.44
1:G:3798:LEU:O	1:G:3802:ILE:HG12	2.18	0.44
1:G:3829:PHE:HD2	1:G:3915:ILE:HD11	1.82	0.44
1:A:59:PRO:HD2	1:A:304:ALA:HB1	2.00	0.44
1:A:231:LEU:HD11	1:A:245:VAL:CG1	2.47	0.44
1:A:260:TRP:CZ3	1:A:284:HIS:HB2	2.52	0.44
1:A:342:GLY:N	1:A:390:LEU:O	2.50	0.44
1:A:736:HIS:HD2	1:A:742:ASP:OD2	2.00	0.44
1:A:871:ARG:HB2	1:A:929:LEU:HD12	2.00	0.44
1:A:1714:LEU:O	1:A:1718:ILE:HG12	2.17	0.44
1:A:1734:TYR:HB2	1:A:2141:ALA:HB2	2.00	0.44
1:A:1805:GLU:HA	1:A:1808:ARG:HG2	2.00	0.44
1:A:2151:ASP:O	1:A:2154:SER:OG	2.19	0.44
1:A:3840:SER:O	1:A:3922:TYR:OH	2.22	0.44
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.81	0.44
1:A:4963:ILE:HD11	1:A:5025:GLY:O	2.18	0.44
1:C:342:GLY:N	1:C:390:LEU:O	2.50	0.44
1:C:519:VAL:HG12	1:C:523:TYR:HE2	1.83	0.44
1:C:1205:GLY:HA3	1:C:1227:ALA:HB3	2.00	0.44
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.18	0.44
1:C:4963:ILE:HD11	1:C:5025:GLY:O	2.18	0.44
1:E:60:PRO:HD2	1:E:281:ARG:NH2	2.32	0.44
1:E:565:TYR:HB2	1:E:602:VAL:HG22	2.00	0.44
1:E:614:VAL:HG13	1:E:617:ASN:HB3	2.00	0.44
1:E:758:ARG:HG2	1:E:763:PRO:HA	1.99	0.44
1:G:59:PRO:HD2	1:G:304:ALA:HB1	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:60:PRO:HD2	1:G:281:ARG:NH2	2.32	0.44
1:G:692:TYR:CZ	1:G:694:PRO:HG3	2.52	0.44
1:G:1818:ALA:HB1	1:G:1838:PHE:CE1	2.52	0.44
1:G:2829:GLY:HA2	1:G:2933:ASN:HA	2.00	0.44
1:G:3952:SER:HB2	1:G:4015:GLU:OE1	2.18	0.44
1:G:4573:ILE:HG22	1:G:4577:LEU:CD1	2.48	0.44
1:G:4798:MET:O	1:G:4802:GLY:N	2.50	0.44
2:H:15:PHE:HE1	2:H:67:SER:HB3	1.83	0.44
1:A:116:MET:HE1	1:A:139:GLU:OE2	2.18	0.44
1:A:210:GLU:HG2	1:A:273:HIS:HE1	1.83	0.44
1:A:1288:PHE:CD1	1:A:1553:PHE:HD1	2.35	0.44
1:A:1858:ASP:O	1:A:1862:ILE:HG12	2.18	0.44
1:A:3887:PHE:CZ	1:A:3891:LEU:HD11	2.52	0.44
1:A:4550:LYS:HB2	1:A:4550:LYS:HE3	1.85	0.44
1:C:403:MET:CE	1:C:448:LEU:HD23	2.48	0.44
1:C:495:ASN:C	1:C:553:ARG:HH12	2.22	0.44
1:C:2207:VAL:HG11	1:C:2235:PHE:CD2	2.53	0.44
1:C:5011:TRP:O	1:C:5015:GLN:HG2	2.18	0.44
1:E:118:LEU:HA	1:E:137:LEU:HD23	2.00	0.44
1:E:519:VAL:HG12	1:E:523:TYR:HE2	1.83	0.44
1:E:1714:LEU:O	1:E:1718:ILE:HG12	2.18	0.44
1:E:1719:HIS:CD2	1:E:1802:ILE:HG23	2.52	0.44
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.17	0.44
1:G:244:LEU:HD23	1:G:300:VAL:HG12	2.00	0.44
1:G:554:LEU:HD22	1:G:1596:GLU:HG2	2.00	0.44
1:G:1715:LEU:HD21	1:G:1807:LEU:HD11	1.99	0.44
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.51	0.44
1:G:3963:ASN:HA	1:G:3966:THR:HG22	2.00	0.44
1:A:554:LEU:HD22	1:A:1596:GLU:HG2	2.00	0.44
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.17	0.44
1:A:2207:VAL:HG11	1:A:2235:PHE:CD2	2.53	0.44
1:A:4033:GLY:O	1:A:4189:ARG:NH2	2.40	0.44
1:A:4581:LYS:CB	1:G:4878:ASP:HA	2.48	0.44
2:B:15:PHE:HE1	2:B:67:SER:HB3	1.83	0.44
1:C:445:LEU:HD23	1:C:521:LEU:HB3	1.99	0.44
1:C:758:ARG:HG2	1:C:763:PRO:HA	1.99	0.44
1:C:909:ASN:O	1:C:912:SER:OG	2.28	0.44
1:C:1087:ARG:HB3	1:C:1223:PHE:HD1	1.82	0.44
1:C:1581:LEU:HD11	1:C:1595:LEU:HD23	1.99	0.44
1:C:1717:SER:HA	1:C:1721:GLU:CB	2.48	0.44
1:C:3780:LEU:HD23	1:C:3819:TYR:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3889:GLN:O	1:C:3893:GLU:HG3	2.18	0.44
1:C:4045:VAL:HG21	1:C:4154:VAL:HG11	1.99	0.44
1:C:4181:ILE:HD11	1:C:4193:ILE:HD11	1.98	0.44
1:C:4555:LEU:HD11	1:C:4656:LEU:HD13	2.00	0.44
1:C:4901:ILE:HG21	1:C:4913:ARG:HH21	1.82	0.44
1:E:484:LEU:HD11	1:E:536:ASN:OD1	2.18	0.44
1:E:705:ASN:OD1	1:E:706:GLY:N	2.51	0.44
1:E:1579:MET:O	1:E:1582:SER:OG	2.25	0.44
1:E:1586:ASN:O	1:E:1588:ALA:N	2.46	0.44
1:E:1717:SER:HA	1:E:1721:GLU:CB	2.48	0.44
1:E:3965:LEU:HA	1:E:3968:TYR:HD2	1.83	0.44
1:E:4205:TRP:CZ2	1:E:4214:LYS:HE2	2.53	0.44
1:E:4580:TYR:HE1	1:E:4631:PHE:HB2	1.80	0.44
2:F:36:PHE:CZ	2:F:97:LEU:HD22	2.52	0.44
1:G:103:TYR:CE2	1:G:163:VAL:HA	2.53	0.44
1:G:207:SER:OG	1:G:208:CYS:N	2.51	0.44
1:G:210:GLU:HG2	1:G:273:HIS:HE1	1.83	0.44
1:G:342:GLY:N	1:G:390:LEU:O	2.51	0.44
1:G:1858:ASP:O	1:G:1862:ILE:HG12	2.18	0.44
1:G:2503:VAL:HG12	1:G:2559:LEU:HD12	1.99	0.44
1:G:2902:HIS:H	1:G:2905:LEU:HD12	1.82	0.44
1:G:3817:LEU:HD13	1:G:3899:PHE:HD1	1.83	0.44
1:A:755:ILE:O	1:A:767:VAL:HG22	2.18	0.43
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.18	0.43
1:A:1667:LEU:HD23	1:A:1710:GLY:CA	2.47	0.43
1:A:3666:ASP:O	1:A:3669:PHE:HD2	2.01	0.43
1:C:614:VAL:HG13	1:C:617:ASN:HB3	2.00	0.43
1:C:692:TYR:CZ	1:C:694:PRO:HG3	2.52	0.43
1:C:1653:LEU:HD23	1:C:1707:LEU:CD1	2.48	0.43
1:C:1818:ALA:HB1	1:C:1838:PHE:CE1	2.52	0.43
1:C:1858:ASP:O	1:C:1862:ILE:HG12	2.18	0.43
1:C:3371:LYS:HA	1:C:3374:ALA:HB3	1.99	0.43
1:C:3798:LEU:HD12	1:C:3880:PHE:CE1	2.53	0.43
1:C:4180:ARG:NH2	1:C:4981:GLU:OE1	2.50	0.43
1:C:4579:PHE:HB2	1:C:4631:PHE:CE1	2.53	0.43
1:C:4821:LYS:HD3	1:C:4824:ARG:HE	1.83	0.43
1:E:49:LEU:HA	1:E:49:LEU:HD23	1.76	0.43
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.88	0.43
1:E:2503:VAL:HG12	1:E:2559:LEU:HD12	1.99	0.43
1:E:4180:ARG:NH2	1:E:4981:GLU:OE1	2.51	0.43
1:G:565:TYR:HB2	1:G:602:VAL:HG22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	2.00	0.43
1:G:1805:GLU:HA	1:G:1808:ARG:HG2	1.99	0.43
1:G:2351:ASN:O	1:G:2355:ARG:HG2	2.18	0.43
1:G:3780:LEU:HD12	1:G:3828:PHE:CE1	2.53	0.43
1:A:118:LEU:HA	1:A:137:LEU:HD23	2.00	0.43
1:A:607:CYS:SG	1:A:618:GLN:HG2	2.57	0.43
1:A:687:ALA:HB2	1:A:711:LEU:HD23	1.99	0.43
1:A:764:VAL:O	1:A:764:VAL:HG12	2.18	0.43
1:A:1970:GLN:HA	1:A:1973:GLN:HG2	1.99	0.43
1:A:2773:ASN:HD22	1:A:2775:TRP:HE1	1.65	0.43
1:C:60:PRO:HD2	1:C:281:ARG:NH2	2.32	0.43
1:C:755:ILE:O	1:C:767:VAL:HG22	2.18	0.43
1:C:1155:LEU:O	1:C:1157:GLU:N	2.51	0.43
1:C:2763:HIS:NE2	1:C:2792:ARG:O	2.50	0.43
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.53	0.43
1:C:2773:ASN:HD22	1:C:2775:TRP:HE1	1.65	0.43
1:C:4721:LYS:HB2	1:C:4741:LEU:HD13	2.00	0.43
1:C:4815:ASP:O	1:C:4819:GLY:N	2.47	0.43
1:C:4823:LEU:HA	1:C:4823:LEU:HD23	1.86	0.43
2:D:54:GLU:HG3	2:D:55:VAL:HG13	1.99	0.43
1:E:260:TRP:CZ3	1:E:284:HIS:HB2	2.53	0.43
1:E:293:LEU:HB2	1:E:378:LEU:HD12	2.00	0.43
1:E:764:VAL:O	1:E:764:VAL:HG12	2.18	0.43
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	2.00	0.43
1:E:4705:VAL:HG22	1:E:4711:PHE:HD1	1.82	0.43
1:E:4960:ILE:HD13	1:E:4983:HIS:HB3	2.00	0.43
1:G:614:VAL:HG13	1:G:617:ASN:HB3	2.00	0.43
1:G:871:ARG:HB2	1:G:929:LEU:HD12	2.00	0.43
1:G:2207:VAL:HG11	1:G:2235:PHE:CD2	2.54	0.43
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.53	0.43
1:G:4552:LEU:HD21	1:G:4663:CYS:SG	2.59	0.43
1:A:35:LEU:HD13	1:A:49:LEU:HD22	2.00	0.43
1:A:69:LEU:HD23	1:A:109:LEU:HD23	1.99	0.43
1:A:403:MET:CE	1:A:448:LEU:HD23	2.48	0.43
1:A:1591:CYS:N	1:A:1592:PRO:HD2	2.34	0.43
1:A:1762:LEU:HA	1:A:1763:PRO:HD2	1.92	0.43
1:A:1849:LEU:HG	1:A:1945:TYR:CD2	2.53	0.43
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.99	0.43
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	2.00	0.43
1:A:4192:ARG:HH11	1:A:5028:PHE:HB3	1.84	0.43
1:C:401:ALA:O	1:C:404:ILE:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:993:HIS:CE1	1:C:1020:ARG:HB3	2.48	0.43
1:C:1598:GLN:O	1:C:1600:LEU:N	2.49	0.43
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.18	0.43
1:C:4059:LEU:HD22	1:C:4167:ALA:HB2	1.99	0.43
1:C:4192:ARG:HH11	1:C:5028:PHE:HB3	1.83	0.43
1:C:4205:TRP:CZ2	1:C:4214:LYS:HE2	2.53	0.43
2:D:15:PHE:HE1	2:D:67:SER:HB3	1.84	0.43
1:E:554:LEU:HD22	1:E:1596:GLU:HG2	2.00	0.43
1:E:755:ILE:O	1:E:767:VAL:HG22	2.18	0.43
1:E:1762:LEU:HA	1:E:1763:PRO:HD2	1.92	0.43
1:E:2159:LEU:HA	1:E:2162:ILE:HG22	1.99	0.43
1:E:2242:ILE:HD11	1:E:2246:ASN:ND2	2.33	0.43
1:E:2326:CYS:O	1:E:2329:GLU:HG2	2.19	0.43
1:E:2773:ASN:HD22	1:E:2775:TRP:HE1	1.65	0.43
1:E:4205:TRP:CZ2	1:E:4986:ALA:HB2	2.54	0.43
1:E:4555:LEU:HD11	1:E:4656:LEU:HD13	1.99	0.43
1:E:4823:LEU:HD23	1:E:4823:LEU:HA	1.86	0.43
1:G:2159:LEU:HA	1:G:2162:ILE:HG22	1.99	0.43
1:A:1738:LEU:HD11	1:A:2143:THR:HB	2.01	0.43
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.18	0.43
1:C:69:LEU:HD23	1:C:109:LEU:HD23	1.99	0.43
1:C:449:ILE:HG12	1:C:525:LEU:HA	2.01	0.43
1:C:705:ASN:OD1	1:C:706:GLY:N	2.51	0.43
1:C:871:ARG:HB2	1:C:929:LEU:HD12	2.00	0.43
1:C:1232:ARG:HG3	1:C:1828:ASP:OD2	2.18	0.43
1:C:1254:HIS:CD2	1:C:1280:GLN:HB3	2.52	0.43
1:C:1254:HIS:CE1	1:C:1256:GLU:HB2	2.52	0.43
1:C:2212:VAL:HG21	1:C:2256:TYR:CZ	2.53	0.43
1:C:2326:CYS:O	1:C:2329:GLU:HG2	2.19	0.43
1:E:101:LEU:HD22	1:E:107:ILE:HG21	2.01	0.43
1:E:636:ASN:HD21	2:F:35:LYS:NZ	2.16	0.43
1:E:1849:LEU:HG	1:E:1945:TYR:CD2	2.54	0.43
1:E:3927:GLN:NE2	1:E:3988:ALA:HA	2.32	0.43
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.19	0.43
1:E:4842:GLY:O	1:E:4846:VAL:HG23	2.18	0.43
1:G:252:VAL:HA	1:G:255:HIS:ND1	2.33	0.43
1:G:519:VAL:HG12	1:G:523:TYR:HE2	1.83	0.43
1:G:681:HIS:O	1:G:682:LEU:HD12	2.19	0.43
1:G:3382:GLU:O	1:G:3386:GLU:N	2.48	0.43
1:G:3795:SER:O	1:G:3799:LYS:HG2	2.17	0.43
1:G:4717:ASP:OD1	1:G:4719:PHE:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:293:LEU:HB2	1:A:378:LEU:HD12	2.00	0.43
1:A:1254:HIS:CE1	1:A:1256:GLU:HB2	2.53	0.43
1:A:1638:ALA:HA	1:A:1649:ASP:HA	2.01	0.43
1:A:2212:VAL:HG21	1:A:2256:TYR:CZ	2.53	0.43
1:A:2326:CYS:O	1:A:2329:GLU:HG2	2.19	0.43
1:A:3969:ILE:HG22	1:A:3969:ILE:O	2.18	0.43
1:A:4221:VAL:O	1:A:4225:GLY:N	2.43	0.43
1:A:4693:GLY:O	1:A:4695:ASP:N	2.52	0.43
1:A:4901:ILE:HG21	1:A:4913:ARG:HH21	1.83	0.43
1:A:4960:ILE:HD13	1:A:4983:HIS:HB3	2.00	0.43
1:C:207:SER:OG	1:C:208:CYS:N	2.51	0.43
1:C:3927:GLN:HG3	1:C:3928:GLU:N	2.32	0.43
1:C:4051:SER:HG	1:C:4054:ASN:HB3	1.84	0.43
1:E:252:VAL:HA	1:E:255:HIS:ND1	2.34	0.43
1:E:401:ALA:HA	1:E:404:ILE:HD12	2.01	0.43
1:E:1254:HIS:CE1	1:E:1256:GLU:HB2	2.53	0.43
1:E:1653:LEU:HD23	1:E:1707:LEU:CD1	2.49	0.43
1:E:4686:LEU:O	1:E:4691:GLN:N	2.40	0.43
1:E:4723:LYS:HA	1:E:4726:ASP:HB2	1.99	0.43
1:G:401:ALA:HA	1:G:404:ILE:HD12	2.01	0.43
1:G:736:HIS:HD2	1:G:742:ASP:OD2	2.00	0.43
1:G:1717:SER:HA	1:G:1721:GLU:CB	2.48	0.43
1:G:2773:ASN:HD22	1:G:2775:TRP:HE1	1.65	0.43
1:A:62:LEU:HA	1:A:65:CYS:SG	2.58	0.43
1:A:244:LEU:HD23	1:A:300:VAL:HG12	2.01	0.43
1:A:401:ALA:HA	1:A:404:ILE:HD12	2.01	0.43
1:A:614:VAL:HG13	1:A:617:ASN:HB3	2.00	0.43
1:A:1087:ARG:HB3	1:A:1223:PHE:HD1	1.82	0.43
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	2.00	0.43
1:A:2139:PRO:HG3	1:A:3658:LYS:HZ2	1.82	0.43
1:A:2242:ILE:HD11	1:A:2246:ASN:ND2	2.33	0.43
1:A:3842:LEU:HB3	1:A:3929:SER:OG	2.19	0.43
1:A:4892:ARG:HD2	1:G:4918:ILE:HD13	2.00	0.43
1:A:4942:GLU:HG3	1:C:4944:ARG:HD2	2.01	0.43
1:C:252:VAL:HA	1:C:255:HIS:ND1	2.33	0.43
1:C:1714:LEU:O	1:C:1718:ILE:HG12	2.18	0.43
1:C:2515:GLN:O	1:C:2518:LEU:HB3	2.19	0.43
1:E:871:ARG:HB2	1:E:929:LEU:HD12	2.00	0.43
1:E:1638:ALA:HA	1:E:1649:ASP:HA	2.01	0.43
1:E:1961:PHE:CZ	1:E:2063:LEU:HD23	2.54	0.43
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:31:GLU:HA	1:G:32:GLN:HA	1.71	0.43
1:G:118:LEU:HA	1:G:137:LEU:HD23	2.00	0.43
1:G:401:ALA:O	1:G:404:ILE:HB	2.18	0.43
1:G:495:ASN:C	1:G:553:ARG:HH12	2.22	0.43
1:G:667:MET:HG2	1:G:668:VAL:O	2.19	0.43
1:G:2283:ASN:HB2	1:G:2286:LEU:HB3	2.00	0.43
1:G:2515:GLN:O	1:G:2518:LEU:HB3	2.19	0.43
1:G:4179:GLY:HA3	1:G:4197:ILE:HD11	2.01	0.43
1:G:4208:PRO:HG2	1:G:4210:VAL:HG23	2.00	0.43
1:G:4686:LEU:HA	1:G:4690:GLU:H	1.82	0.43
1:A:667:MET:HG2	1:A:668:VAL:O	2.19	0.43
1:A:1155:LEU:O	1:A:1157:GLU:N	2.52	0.43
1:A:1581:LEU:HD13	1:A:1594:ARG:C	2.38	0.43
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.83	0.43
1:A:4552:LEU:HD21	1:A:4663:CYS:SG	2.59	0.43
1:C:347:PHE:CE1	1:C:387:ALA:HB2	2.51	0.43
1:C:833:GLY:HA3	1:C:838:HIS:HD2	1.84	0.43
1:C:875:ALA:CB	1:C:922:LEU:HA	2.49	0.43
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.84	0.43
1:C:1293:LEU:HD23	1:C:1584:ARG:HG2	2.01	0.43
1:C:1591:CYS:N	1:C:1592:PRO:HD2	2.33	0.43
1:C:1745:ILE:O	1:C:1746:THR:OG1	2.35	0.43
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	2.00	0.43
1:C:3969:ILE:O	1:C:3969:ILE:HG22	2.18	0.43
1:E:210:GLU:HG2	1:E:273:HIS:HE1	1.83	0.43
1:E:545:ASP:OD1	1:E:546:TRP:N	2.52	0.43
1:E:1663:HIS:O	1:E:1667:LEU:HD13	2.19	0.43
1:E:1781:CYS:SG	1:E:1783:VAL:HG22	2.59	0.43
1:E:2143:THR:HG23	1:E:3654:LEU:HD11	1.99	0.43
1:E:3798:LEU:HD12	1:E:3880:PHE:CE1	2.53	0.43
1:E:3969:ILE:O	1:E:3969:ILE:HG22	2.18	0.43
1:E:4205:TRP:HB2	1:E:4245:MET:HE1	2.00	0.43
2:F:74:LEU:HB2	2:F:99:PHE:HB2	2.01	0.43
1:G:62:LEU:HA	1:G:65:CYS:SG	2.58	0.43
1:G:229:GLU:HA	1:G:249:GLY:HA2	2.00	0.43
1:G:755:ILE:O	1:G:767:VAL:HG22	2.18	0.43
1:G:2242:ILE:HD11	1:G:2246:ASN:ND2	2.33	0.43
1:G:2326:CYS:O	1:G:2329:GLU:HG2	2.19	0.43
1:G:3649:ALA:O	1:G:3653:PHE:N	2.43	0.43
1:G:4677:LEU:CD1	1:G:4702:ASP:HB3	2.48	0.43
1:A:15:ARG:HB2	1:A:18:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1232:ARG:HG3	1:A:1828:ASP:OD2	2.18	0.43
1:A:1254:HIS:CD2	1:A:1280:GLN:HB3	2.52	0.43
1:A:1433:TYR:HE1	1:A:1578:ALA:HB3	1.83	0.43
1:A:2515:GLN:O	1:A:2518:LEU:HB3	2.19	0.43
1:A:4059:LEU:HD22	1:A:4167:ALA:HB2	1.99	0.43
1:A:4562:LEU:HD11	1:A:4656:LEU:HD13	2.00	0.43
1:A:4822:THR:CG2	1:G:4839:MET:HG3	2.47	0.43
1:A:4928:LEU:HD23	1:A:4931:ILE:HD12	2.00	0.43
1:A:4973:HIS:NE2	1:A:4976:GLU:HB3	2.34	0.43
1:C:35:LEU:HD13	1:C:49:LEU:HD22	2.00	0.43
1:C:116:MET:HE1	1:C:139:GLU:OE2	2.18	0.43
1:C:626:LEU:HB2	1:C:627:PRO:HD3	2.01	0.43
1:C:764:VAL:O	1:C:764:VAL:HG12	2.17	0.43
1:C:2242:ILE:HD11	1:C:2246:ASN:ND2	2.33	0.43
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.17	0.43
1:C:3666:ASP:O	1:C:3669:PHE:HD2	2.01	0.43
1:C:4723:LYS:HA	1:C:4726:ASP:HB2	1.99	0.43
1:C:4917:ASP:OD2	1:E:4892:ARG:NE	2.52	0.43
1:E:449:ILE:HG12	1:E:525:LEU:HA	2.00	0.43
1:E:1858:ASP:O	1:E:1862:ILE:HG12	2.18	0.43
1:E:2207:VAL:HG11	1:E:2235:PHE:CD2	2.54	0.43
1:E:3666:ASP:O	1:E:3669:PHE:HD2	2.01	0.43
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.81	0.43
1:E:4661:TYR:HE2	1:E:4789:PHE:HB2	1.84	0.43
1:E:4721:LYS:HB2	1:E:4741:LEU:HD13	2.00	0.43
1:E:4934:GLY:HA2	1:E:4937:ILE:HG12	2.01	0.43
1:G:669:ASP:CG	1:G:790:ARG:HG2	2.39	0.43
1:G:696:PRO:HG2	1:G:1613:LEU:HD22	2.01	0.43
1:G:1087:ARG:HB3	1:G:1223:PHE:HD1	1.82	0.43
1:G:1433:TYR:HE1	1:G:1578:ALA:HB3	1.83	0.43
1:G:1667:LEU:HD23	1:G:1710:GLY:CA	2.48	0.43
1:G:2124:LEU:HG	1:G:3673:MET:HE3	1.99	0.43
1:G:4204:GLN:CG	1:G:4245:MET:HG2	2.49	0.43
1:G:4724:VAL:HG13	1:G:4728:HIS:HD2	1.83	0.43
1:G:4927:ILE:O	1:G:4931:ILE:N	2.50	0.43
2:H:27:THR:HA	2:H:38:SER:HA	2.00	0.43
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.00	0.43
1:A:565:TYR:HB2	1:A:602:VAL:HG22	2.00	0.43
1:A:1663:HIS:O	1:A:1667:LEU:HD13	2.19	0.43
1:A:1781:CYS:SG	1:A:1783:VAL:HG22	2.59	0.43
1:A:2351:ASN:O	1:A:2355:ARG:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3927:GLN:HG3	1:A:3928:GLU:N	2.32	0.43
1:A:4205:TRP:CZ2	1:A:4214:LYS:HE2	2.53	0.43
1:A:4208:PRO:HB2	1:A:4209:GLN:H	1.70	0.43
1:A:4813:LEU:O	1:A:4816:ILE:HG22	2.19	0.43
1:A:4869:GLU:O	1:A:4871:GLU:N	2.44	0.43
1:C:294:THR:HG22	1:C:296:ASP:H	1.84	0.43
1:C:565:TYR:HB2	1:C:602:VAL:HG22	2.00	0.43
1:C:669:ASP:CG	1:C:790:ARG:HG2	2.39	0.43
1:C:4914:VAL:O	1:C:4918:ILE:HG12	2.19	0.43
1:E:650:VAL:N	1:E:777:PHE:O	2.47	0.43
1:E:669:ASP:CG	1:E:790:ARG:HG2	2.39	0.43
1:E:781:VAL:HG11	1:E:789:VAL:HG21	2.01	0.43
1:E:1591:CYS:N	1:E:1592:PRO:HD2	2.34	0.43
1:E:1598:GLN:O	1:E:1600:LEU:N	2.50	0.43
1:E:2515:GLN:O	1:E:2518:LEU:HB3	2.19	0.43
1:E:3887:PHE:O	1:E:3891:LEU:HD13	2.19	0.43
1:E:4552:LEU:HD21	1:E:4663:CYS:SG	2.59	0.43
1:E:4852:THR:HG21	1:E:4883:TYR:HB2	2.01	0.43
1:G:281:ARG:HG2	1:G:312:THR:HG23	2.01	0.43
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.18	0.43
1:G:4027:LEU:HB3	1:G:4044:MET:HE3	2.01	0.43
1:G:4204:GLN:HG2	1:G:4245:MET:HG2	2.01	0.43
1:G:4239:GLU:OE1	1:G:4675:LYS:HD2	2.17	0.43
1:G:4963:ILE:HD11	1:G:5025:GLY:O	2.18	0.43
1:A:281:ARG:HG2	1:A:312:THR:HG23	2.01	0.43
1:A:347:PHE:CE1	1:A:387:ALA:HB2	2.51	0.43
1:A:449:ILE:HG12	1:A:525:LEU:HA	2.01	0.43
1:A:575:LEU:HD22	1:A:606:LEU:HA	2.01	0.43
1:A:622:THR:HG21	1:A:1681:VAL:HG13	2.00	0.43
1:A:1660:GLN:NE2	1:A:1704:PRO:HB2	2.33	0.43
1:A:1961:PHE:CZ	1:A:2063:LEU:HD23	2.54	0.43
1:A:4205:TRP:CZ2	1:A:4986:ALA:HB2	2.53	0.43
1:A:4826:ILE:HD11	1:G:4836:GLN:OE1	2.19	0.43
1:A:4888:TYR:CZ	1:G:4917:ASP:OD2	2.71	0.43
2:B:54:GLU:HG3	2:B:55:VAL:HG13	2.00	0.43
1:C:4239:GLU:OE1	1:C:4675:LYS:HD2	2.18	0.43
1:C:4661:TYR:HE2	1:C:4789:PHE:HB2	1.84	0.43
1:C:4839:MET:HG3	1:E:4822:THR:CG2	2.41	0.43
1:C:4869:GLU:O	1:C:4871:GLU:N	2.44	0.43
1:E:495:ASN:C	1:E:553:ARG:HH12	2.21	0.43
1:E:607:CYS:SG	1:E:618:GLN:HG2	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1087:ARG:HB3	1:E:1223:PHE:HD1	1.82	0.43
1:E:1126:GLY:HA2	1:E:1143:TRP:HE1	1.84	0.43
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.83	0.43
1:E:3798:LEU:O	1:E:3802:ILE:HG12	2.19	0.43
1:E:4963:ILE:HD11	1:E:5025:GLY:O	2.18	0.43
1:G:622:THR:HG21	1:G:1681:VAL:HG13	2.01	0.43
1:G:1591:CYS:N	1:G:1592:PRO:HD2	2.34	0.43
1:G:1638:ALA:HA	1:G:1649:ASP:HA	2.01	0.43
1:G:2347:GLU:O	1:G:2351:ASN:ND2	2.40	0.43
1:G:4036:VAL:HG12	1:G:4037:ASN:N	2.34	0.43
1:G:4185:GLY:HA2	1:G:5009:TYR:CE2	2.54	0.43
1:G:4928:LEU:HD23	1:G:4931:ILE:HD12	2.01	0.43
1:G:4965:SER:HA	1:G:4975:PHE:CD1	2.53	0.43
1:A:715:GLY:HA2	1:A:719:LEU:HA	2.01	0.42
1:A:1116:GLY:HA2	1:A:1121:ALA:HB3	2.00	0.42
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	2.00	0.42
1:A:1653:LEU:HD23	1:A:1707:LEU:CD1	2.49	0.42
1:A:1717:SER:HA	1:A:1721:GLU:CB	2.49	0.42
1:A:2505:PHE:CE1	1:A:2509:VAL:HG21	2.54	0.42
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.18	0.42
1:A:4223:ASN:HD21	1:A:4946:GLN:NE2	2.17	0.42
1:A:4914:VAL:O	1:A:4918:ILE:HG12	2.19	0.42
2:B:74:LEU:HB2	2:B:99:PHE:HB2	2.01	0.42
1:C:59:PRO:HD2	1:C:304:ALA:HB1	2.01	0.42
1:C:104:GLY:HA3	1:C:159:GLU:HG2	2.00	0.42
1:C:1660:GLN:NE2	1:C:1704:PRO:HB2	2.33	0.42
1:C:2799:GLU:O	1:C:2803:GLU:HG2	2.19	0.42
1:C:3784:SER:OG	1:C:3825:GLU:OE1	2.28	0.42
1:C:3840:SER:O	1:C:3922:TYR:OH	2.22	0.42
1:C:4960:ILE:HD13	1:C:4983:HIS:HB3	2.00	0.42
2:D:78:PRO:HA	2:D:81:ALA:HB3	2.01	0.42
1:E:59:PRO:HD2	1:E:304:ALA:HB1	2.00	0.42
1:E:628:GLY:C	1:E:630:GLU:H	2.23	0.42
1:E:2290:LEU:O	1:E:3849:ARG:NH1	2.52	0.42
1:E:2802:LYS:O	1:E:2806:ARG:HG3	2.19	0.42
1:E:4097:MET:HG3	1:E:4108:ILE:CG2	2.49	0.42
1:E:4693:GLY:O	1:E:4695:ASP:N	2.52	0.42
1:G:575:LEU:HD22	1:G:606:LEU:HA	2.01	0.42
1:G:1116:GLY:HA2	1:G:1121:ALA:HB3	2.00	0.42
1:G:1126:GLY:HA2	1:G:1143:TRP:HE1	1.84	0.42
1:G:1714:LEU:O	1:G:1718:ILE:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2799:GLU:O	1:G:2803:GLU:HG2	2.19	0.42
1:G:4684:ASP:OD2	1:G:4686:LEU:HB3	2.18	0.42
1:A:545:ASP:OD1	1:A:546:TRP:N	2.52	0.42
1:A:628:GLY:C	1:A:630:GLU:H	2.23	0.42
1:A:669:ASP:CG	1:A:790:ARG:HG2	2.39	0.42
1:A:2124:LEU:HD11	1:A:2128:TYR:HE2	1.85	0.42
1:A:2335:LEU:O	1:A:2339:VAL:HG22	2.19	0.42
1:A:2339:VAL:HG23	1:A:2340:PHE:N	2.34	0.42
1:A:2799:GLU:O	1:A:2803:GLU:HG2	2.20	0.42
1:C:103:TYR:CE2	1:C:163:VAL:HA	2.53	0.42
1:C:293:LEU:HB2	1:C:378:LEU:HD12	2.00	0.42
1:C:462:GLU:HG3	1:C:3823:LYS:HZ3	1.83	0.42
1:C:545:ASP:OD1	1:C:546:TRP:N	2.52	0.42
1:C:646:PRO:HB3	1:C:793:LEU:HD11	2.01	0.42
1:C:1638:ALA:HA	1:C:1649:ASP:HA	2.01	0.42
1:C:1738:LEU:HD11	1:C:2143:THR:HB	2.01	0.42
1:C:1849:LEU:HD13	1:C:1854:PHE:CD2	2.48	0.42
1:C:1849:LEU:HG	1:C:1945:TYR:CD2	2.54	0.42
1:C:4552:LEU:HD21	1:C:4663:CYS:SG	2.58	0.42
1:C:4562:LEU:HD11	1:C:4656:LEU:HD13	2.00	0.42
1:C:4685:GLY:O	1:C:4689:THR:N	2.53	0.42
1:E:35:LEU:HD13	1:E:49:LEU:HD22	2.00	0.42
1:E:462:GLU:HG3	1:E:3823:LYS:HZ3	1.83	0.42
1:E:1738:LEU:HD11	1:E:2143:THR:HB	2.01	0.42
1:E:1805:GLU:HA	1:E:1808:ARG:HG2	1.99	0.42
1:E:4577:LEU:HG	1:E:4580:TYR:HE2	1.84	0.42
1:E:4860:ARG:HD3	1:G:4582:VAL:HG11	2.02	0.42
1:E:4865:LYS:HB2	1:E:4874:MET:HB3	2.00	0.42
1:G:61:ASP:OD2	1:G:402:ARG:NH2	2.53	0.42
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.00	0.42
1:G:1598:GLN:O	1:G:1600:LEU:N	2.50	0.42
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.20	0.42
1:G:4181:ILE:HB	1:G:4988:TYR:CE1	2.54	0.42
1:G:4665:LYS:O	1:G:4669:VAL:HG23	2.20	0.42
1:A:229:GLU:HA	1:A:249:GLY:HA2	2.00	0.42
1:A:665:GLU:HB2	1:A:792:LEU:HB2	2.02	0.42
1:A:1715:LEU:HD21	1:A:1807:LEU:HD11	2.01	0.42
1:A:2283:ASN:HB2	1:A:2286:LEU:HB3	2.01	0.42
1:A:2763:HIS:NE2	1:A:2792:ARG:O	2.50	0.42
1:C:244:LEU:HD23	1:C:300:VAL:HG12	2.01	0.42
1:C:401:ALA:HA	1:C:404:ILE:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:453:GLU:HA	1:C:454:PRO:HD3	1.88	0.42
1:C:622:THR:HG21	1:C:1681:VAL:HG13	2.01	0.42
1:C:1078:GLU:HG3	1:C:1237:TRP:CZ2	2.54	0.42
1:C:1667:LEU:HD23	1:C:1710:GLY:CA	2.47	0.42
1:C:2137:ALA:HA	1:C:2140:ARG:HH21	1.84	0.42
1:C:2339:VAL:HG23	1:C:2340:PHE:N	2.34	0.42
1:C:3798:LEU:O	1:C:3802:ILE:HG12	2.19	0.42
1:C:3924:LEU:O	1:C:3928:GLU:HG3	2.19	0.42
1:C:4057:MET:HA	1:C:4060:LYS:HG2	2.00	0.42
1:C:4205:TRP:CZ2	1:C:4986:ALA:HB2	2.54	0.42
1:E:244:LEU:HD23	1:E:300:VAL:HG12	2.02	0.42
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.00	0.42
1:E:935:LEU:HB2	1:E:937:CYS:SG	2.59	0.42
1:E:1112:ASP:HA	1:E:1607:ARG:HH11	1.82	0.42
1:E:1433:TYR:HE1	1:E:1578:ALA:HB3	1.83	0.42
1:E:1831:GLY:HA3	1:E:1836:PHE:HB2	2.01	0.42
1:E:3919:THR:HG22	1:E:3965:LEU:HD11	2.02	0.42
1:E:4076:ALA:HB2	1:E:4100:GLN:HB3	2.00	0.42
2:F:78:PRO:HA	2:F:81:ALA:HB3	2.02	0.42
1:G:712:TYR:HB3	1:G:768:PHE:CZ	2.55	0.42
1:G:875:ALA:CB	1:G:922:LEU:HA	2.49	0.42
1:G:1155:LEU:O	1:G:1157:GLU:N	2.51	0.42
1:G:1205:GLY:HA3	1:G:1227:ALA:HB3	2.01	0.42
1:G:1254:HIS:CD2	1:G:1280:GLN:H	2.37	0.42
1:G:1736:VAL:HA	1:G:1737:PRO:HD2	1.87	0.42
1:A:833:GLY:HA3	1:A:838:HIS:HD2	1.85	0.42
1:A:993:HIS:CE1	1:A:1020:ARG:HB3	2.49	0.42
1:A:1078:GLU:HG3	1:A:1237:TRP:CZ2	2.54	0.42
1:A:3798:LEU:O	1:A:3802:ILE:HG12	2.19	0.42
1:A:5011:TRP:O	1:A:5015:GLN:HG2	2.18	0.42
1:C:681:HIS:O	1:C:682:LEU:HD12	2.19	0.42
1:C:1781:CYS:SG	1:C:1783:VAL:HG22	2.59	0.42
1:C:2212:VAL:HG21	1:C:2256:TYR:CE2	2.55	0.42
1:C:2335:LEU:O	1:C:2339:VAL:HG22	2.19	0.42
1:C:4028:LEU:HA	1:C:4028:LEU:HD23	1.79	0.42
1:E:107:ILE:HG13	1:E:148:TRP:O	2.20	0.42
1:E:229:GLU:HA	1:E:249:GLY:HA2	2.01	0.42
1:E:347:PHE:CE1	1:E:387:ALA:HB2	2.51	0.42
1:E:1254:HIS:CD2	1:E:1280:GLN:H	2.38	0.42
1:E:2283:ASN:HB2	1:E:2286:LEU:HB3	2.01	0.42
1:E:2505:PHE:CE1	1:E:2509:VAL:HG21	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.19	0.42
1:E:4028:LEU:HA	1:E:4028:LEU:HD23	1.79	0.42
1:E:4038:GLY:O	1:E:4042:ARG:HG2	2.19	0.42
1:E:4051:SER:HG	1:E:4054:ASN:HB3	1.84	0.42
1:E:4666:VAL:HG13	1:E:4783:ILE:HG12	2.02	0.42
1:G:736:HIS:NE2	1:G:739:ALA:HB2	2.30	0.42
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	2.01	0.42
1:G:4192:ARG:HH11	1:G:5028:PHE:HB3	1.83	0.42
1:G:4567:LEU:HD11	1:G:4816:ILE:HA	2.01	0.42
2:H:24:VAL:HG21	2:H:59:TRP:HZ2	1.83	0.42
1:A:909:ASN:O	1:A:912:SER:OG	2.28	0.42
1:A:935:LEU:HB2	1:A:937:CYS:SG	2.60	0.42
1:A:1254:HIS:CD2	1:A:1280:GLN:H	2.37	0.42
1:A:4053:SER:HA	1:A:4056:GLU:HB3	2.01	0.42
1:A:4057:MET:HA	1:A:4060:LYS:HG2	1.99	0.42
1:A:4666:VAL:HG13	1:A:4783:ILE:HG12	2.01	0.42
1:C:792:LEU:HD22	1:C:799:GLU:O	2.20	0.42
1:C:2505:PHE:CE1	1:C:2509:VAL:HG21	2.54	0.42
1:C:2802:LYS:O	1:C:2806:ARG:HG3	2.20	0.42
1:C:3915:ILE:HG21	1:C:3915:ILE:HD13	1.75	0.42
1:C:4038:GLY:O	1:C:4042:ARG:HG2	2.19	0.42
1:C:4097:MET:HG3	1:C:4108:ILE:HG23	2.02	0.42
1:C:5027:CYS:H	1:C:5030:LYS:HB2	1.85	0.42
1:E:281:ARG:HG2	1:E:312:THR:HG23	2.01	0.42
1:E:626:LEU:HB2	1:E:627:PRO:HD3	2.01	0.42
1:E:1074:ILE:O	1:E:1238:PHE:HA	2.20	0.42
1:E:1155:LEU:O	1:E:1157:GLU:N	2.52	0.42
1:E:1660:GLN:NE2	1:E:1704:PRO:HB2	2.35	0.42
1:E:2212:VAL:HG21	1:E:2256:TYR:CE2	2.55	0.42
1:G:545:ASP:OD1	1:G:546:TRP:N	2.53	0.42
1:G:781:VAL:HG11	1:G:789:VAL:HG21	2.01	0.42
1:G:935:LEU:HB2	1:G:937:CYS:SG	2.59	0.42
1:G:1868:PRO:HD3	1:G:1925:GLY:HA3	2.01	0.42
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.19	0.42
1:G:2465:ASP:O	1:G:2467:VAL:N	2.52	0.42
1:G:2867:LEU:HD22	1:G:2871:LEU:HB3	2.02	0.42
1:G:4205:TRP:CE3	1:G:4205:TRP:O	2.72	0.42
1:G:4888:TYR:O	1:G:4892:ARG:NH2	2.43	0.42
1:A:107:ILE:HG13	1:A:148:TRP:O	2.19	0.42
1:A:468:LEU:O	1:A:472:ARG:HG2	2.20	0.42
1:A:875:ALA:CB	1:A:922:LEU:HA	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1126:GLY:HA2	1:A:1143:TRP:HE1	1.83	0.42
1:A:1637:MET:O	1:A:1650:ILE:N	2.36	0.42
1:A:3965:LEU:HA	1:A:3968:TYR:HD2	1.82	0.42
1:A:4205:TRP:HB2	1:A:4245:MET:HE1	2.01	0.42
1:C:210:GLU:HG2	1:C:273:HIS:HE1	1.83	0.42
1:C:229:GLU:HA	1:C:249:GLY:HA2	2.00	0.42
1:C:281:ARG:HG2	1:C:312:THR:HG23	2.02	0.42
1:C:541:SER:HB2	1:C:577:ILE:HD12	2.01	0.42
1:C:1663:HIS:O	1:C:1667:LEU:HD13	2.19	0.42
1:C:1727:ARG:HD2	1:C:1772:ARG:HD3	2.02	0.42
1:C:2283:ASN:HB2	1:C:2286:LEU:HB3	2.01	0.42
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.18	0.42
1:E:61:ASP:OD2	1:E:402:ARG:NH2	2.53	0.42
1:E:667:MET:HG2	1:E:668:VAL:O	2.19	0.42
1:E:681:HIS:O	1:E:682:LEU:HD12	2.20	0.42
1:E:712:TYR:HB3	1:E:768:PHE:CZ	2.55	0.42
1:E:1205:GLY:HA3	1:E:1227:ALA:HB3	2.00	0.42
1:E:1232:ARG:HG3	1:E:1828:ASP:OD2	2.19	0.42
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.19	0.42
1:E:3915:ILE:HG21	1:E:3915:ILE:HD13	1.75	0.42
1:E:3924:LEU:O	1:E:3928:GLU:HG3	2.20	0.42
1:E:4799:SER:HA	1:E:4812:HIS:CE1	2.55	0.42
1:G:107:ILE:HG13	1:G:148:TRP:O	2.20	0.42
1:G:1211:LEU:O	1:G:1213:PHE:N	2.53	0.42
1:G:2505:PHE:CE1	1:G:2509:VAL:HG21	2.54	0.42
1:A:1246:GLU:HA	1:A:1247:PRO:HD3	1.87	0.42
1:A:1528:THR:HG22	1:A:1538:THR:H	1.85	0.42
1:A:1598:GLN:O	1:A:1600:LEU:N	2.49	0.42
1:A:2802:LYS:O	1:A:2806:ARG:HG3	2.19	0.42
1:A:4030:LEU:HD23	1:A:4031:LEU:HD12	2.02	0.42
1:A:4076:ALA:HB2	1:A:4100:GLN:HB3	2.00	0.42
1:A:5027:CYS:H	1:A:5030:LYS:HB2	1.85	0.42
1:C:468:LEU:O	1:C:472:ARG:HG2	2.20	0.42
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.01	0.42
1:C:667:MET:HA	1:C:743:VAL:HA	2.01	0.42
1:C:1077:ALA:O	1:C:1189:LEU:HD13	2.20	0.42
1:C:1187:GLY:HA2	1:C:1188:PHE:HA	1.91	0.42
1:C:1456:ASP:O	1:C:1457:TYR:CB	2.67	0.42
1:C:1699:GLU:CD	1:C:1810:LYS:HZ3	2.17	0.42
1:C:3842:LEU:HB3	1:C:3929:SER:OG	2.20	0.42
1:C:3887:PHE:O	1:C:3891:LEU:HD13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3919:THR:HG22	1:C:3965:LEU:HD11	2.02	0.42
1:C:4223:ASN:HD21	1:C:4946:GLN:NE2	2.16	0.42
1:C:4973:HIS:NE2	1:C:4976:GLU:HB3	2.35	0.42
1:E:1211:LEU:O	1:E:1213:PHE:N	2.53	0.42
1:E:1734:TYR:HB2	1:E:2141:ALA:HB2	2.01	0.42
1:E:1769:THR:OG1	1:E:1770:SER:N	2.53	0.42
1:E:2339:VAL:HG23	1:E:2340:PHE:N	2.35	0.42
1:G:35:LEU:HD13	1:G:49:LEU:HD22	2.00	0.42
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.55	0.42
1:G:347:PHE:CE1	1:G:387:ALA:HB2	2.51	0.42
1:G:646:PRO:HB3	1:G:793:LEU:HD11	2.02	0.42
1:G:1849:LEU:HG	1:G:1945:TYR:CD2	2.54	0.42
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.38	0.42
1:G:2340:PHE:CG	1:G:2435:ARG:NH1	2.88	0.42
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.54	0.42
1:G:2868:SER:OG	1:G:2871:LEU:HD13	2.19	0.42
1:G:4661:TYR:OH	1:G:4786:ASP:OD2	2.36	0.42
1:G:4888:TYR:O	1:G:4892:ARG:HD3	2.20	0.42
1:A:589:LEU:HG	1:A:593:HIS:HD2	1.84	0.42
1:A:665:GLU:OE2	1:A:802:PHE:HB3	2.20	0.42
1:A:792:LEU:HD22	1:A:799:GLU:O	2.20	0.42
1:A:1297:PHE:CE1	1:A:1519:LEU:HD11	2.55	0.42
1:A:2212:VAL:HG21	1:A:2256:TYR:CE2	2.55	0.42
1:A:2735:PHE:CD2	1:A:2891:LYS:HD2	2.55	0.42
1:A:3887:PHE:O	1:A:3891:LEU:HD13	2.19	0.42
1:A:4038:GLY:O	1:A:4042:ARG:HG2	2.19	0.42
1:A:4821:LYS:HD3	1:A:4824:ARG:HE	1.84	0.42
1:A:4913:ARG:NH1	1:A:4917:ASP:HB2	2.35	0.42
1:A:4963:ILE:HG23	1:A:4963:ILE:HD12	1.81	0.42
2:B:78:PRO:HA	2:B:81:ALA:HB3	2.02	0.42
1:C:639:ASN:HA	1:C:1635:THR:HG22	2.01	0.42
1:C:696:PRO:HG2	1:C:1613:LEU:HD22	2.01	0.42
1:C:781:VAL:HG11	1:C:789:VAL:HG21	2.01	0.42
1:C:1093:GLU:HA	1:C:1148:VAL:HG13	2.02	0.42
1:C:1211:LEU:O	1:C:1213:PHE:N	2.53	0.42
1:C:2290:LEU:O	1:C:3849:ARG:NH1	2.52	0.42
1:C:2465:ASP:O	1:C:2467:VAL:N	2.52	0.42
1:C:2507:ASP:CG	1:C:2559:LEU:HD22	2.40	0.42
1:C:4097:MET:HG3	1:C:4108:ILE:CG2	2.50	0.42
1:C:4562:LEU:HD21	1:C:4656:LEU:CD1	2.49	0.42
1:C:4576:ILE:CG2	1:C:4643:LEU:HD12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4856:PHE:CZ	1:E:4581:LYS:HA	2.54	0.42
2:D:74:LEU:HB2	2:D:99:PHE:HB2	2.01	0.42
1:E:575:LEU:HD22	1:E:606:LEU:HA	2.01	0.42
1:E:646:PRO:HB3	1:E:793:LEU:HD11	2.02	0.42
1:E:875:ALA:CB	1:E:922:LEU:HA	2.49	0.42
1:E:1077:ALA:O	1:E:1189:LEU:HD13	2.20	0.42
1:E:4562:LEU:HD11	1:E:4656:LEU:HD13	2.01	0.42
1:E:4917:ASP:CB	1:G:4888:TYR:HE1	2.32	0.42
1:E:5027:CYS:H	1:E:5030:LYS:HB2	1.85	0.42
2:F:54:GLU:HG3	2:F:55:VAL:HG13	2.00	0.42
1:G:715:GLY:HA2	1:G:719:LEU:HA	2.01	0.42
1:G:1684:ALA:O	1:G:1687:SER:OG	2.17	0.42
1:G:1727:ARG:HD2	1:G:1772:ARG:HD3	2.02	0.42
1:G:1849:LEU:HD13	1:G:1854:PHE:CD2	2.48	0.42
1:G:2212:VAL:HG21	1:G:2256:TYR:CE2	2.55	0.42
1:A:646:PRO:HB3	1:A:793:LEU:HD11	2.01	0.42
1:A:737:LEU:HD11	2:B:7:ILE:CG2	2.39	0.42
1:A:781:VAL:HG11	1:A:789:VAL:HG21	2.01	0.42
1:A:1670:TYR:HB2	1:A:1714:LEU:HD21	2.02	0.42
1:A:3919:THR:HG22	1:A:3965:LEU:HD11	2.01	0.42
1:A:4097:MET:HG3	1:A:4108:ILE:CG2	2.50	0.42
1:C:667:MET:HG2	1:C:668:VAL:O	2.19	0.42
1:C:1074:ILE:O	1:C:1238:PHE:HA	2.20	0.42
1:C:1254:HIS:CD2	1:C:1280:GLN:H	2.38	0.42
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	2.01	0.42
1:C:2340:PHE:CG	1:C:2435:ARG:NH1	2.87	0.42
1:E:207:SER:OG	1:E:208:CYS:N	2.51	0.42
1:E:414:PHE:O	1:E:418:LEU:HD13	2.20	0.42
1:E:468:LEU:O	1:E:472:ARG:HG2	2.20	0.42
1:E:495:ASN:HB3	1:E:553:ARG:HH22	1.85	0.42
1:E:1078:GLU:HG3	1:E:1237:TRP:CZ2	2.54	0.42
1:E:2335:LEU:O	1:E:2339:VAL:HG22	2.19	0.42
1:E:2465:ASP:O	1:E:2467:VAL:N	2.52	0.42
1:E:2735:PHE:CD2	1:E:2891:LYS:HD2	2.55	0.42
1:E:3842:LEU:HB3	1:E:3929:SER:OG	2.20	0.42
1:E:4097:MET:HG3	1:E:4108:ILE:HG23	2.02	0.42
1:E:4973:HIS:NE2	1:E:4976:GLU:HB3	2.34	0.42
1:G:484:LEU:HD11	1:G:536:ASN:OD1	2.20	0.42
1:G:1663:HIS:O	1:G:1667:LEU:HD13	2.19	0.42
1:G:3923:LEU:HD12	1:G:3961:VAL:CG1	2.50	0.42
1:A:104:GLY:HA3	1:A:159:GLU:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:643:SER:HA	1:A:782:SER:HA	2.02	0.42
1:A:1077:ALA:O	1:A:1189:LEU:HD13	2.20	0.42
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.55	0.42
1:A:4576:ILE:HG22	1:A:4643:LEU:HD12	2.02	0.42
1:A:4641:PRO:O	1:A:4644:TRP:HB3	2.20	0.42
1:A:4865:LYS:HB2	1:A:4874:MET:HB3	2.01	0.42
1:C:935:LEU:HB2	1:C:937:CYS:SG	2.60	0.42
1:C:1433:TYR:HE1	1:C:1578:ALA:HB3	1.83	0.42
1:C:4076:ALA:HB2	1:C:4100:GLN:HB3	2.01	0.42
1:C:4989:MET:O	1:C:4993:MET:HG2	2.20	0.42
1:E:544:LEU:O	1:E:548:VAL:HG23	2.20	0.42
1:E:589:LEU:HG	1:E:593:HIS:HD2	1.85	0.42
1:E:715:GLY:HA2	1:E:719:LEU:HA	2.01	0.42
1:E:1727:ARG:HD2	1:E:1772:ARG:HD3	2.02	0.42
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.55	0.42
1:E:2507:ASP:CG	1:E:2559:LEU:HD22	2.40	0.42
1:E:4181:ILE:HB	1:E:4988:TYR:CE1	2.55	0.42
1:G:102:LEU:HD12	1:G:105:HIS:CE1	2.55	0.42
1:G:544:LEU:O	1:G:548:VAL:HG23	2.20	0.42
1:G:589:LEU:HG	1:G:593:HIS:HD2	1.84	0.42
1:G:628:GLY:C	1:G:630:GLU:H	2.23	0.42
1:G:643:SER:HA	1:G:782:SER:HA	2.01	0.42
1:G:716:PHE:HD2	1:G:722:TRP:CH2	2.38	0.42
1:G:1078:GLU:HG3	1:G:1237:TRP:CZ2	2.55	0.42
1:G:1187:GLY:HA2	1:G:1188:PHE:HA	1.91	0.42
1:G:2339:VAL:HG23	1:G:2340:PHE:N	2.35	0.42
1:G:2507:ASP:CG	1:G:2559:LEU:HD22	2.40	0.42
2:H:11:ASP:OD1	2:H:12:GLY:N	2.53	0.42
1:A:441:VAL:HG12	1:A:445:LEU:HD13	2.02	0.41
1:A:1074:ILE:O	1:A:1238:PHE:HA	2.20	0.41
1:A:2290:LEU:O	1:A:3849:ARG:NH1	2.53	0.41
1:A:3996:PHE:HB3	1:A:4020:GLN:OE1	2.20	0.41
1:A:4097:MET:HG3	1:A:4108:ILE:HG23	2.02	0.41
1:A:4721:LYS:HB2	1:A:4741:LEU:HD13	2.01	0.41
1:A:4779:LYS:O	1:A:4783:ILE:HG13	2.21	0.41
1:C:107:ILE:HG13	1:C:148:TRP:O	2.20	0.41
1:C:111:HIS:CD2	1:C:113:HIS:H	2.38	0.41
1:C:441:VAL:HG12	1:C:445:LEU:HD13	2.02	0.41
1:C:495:ASN:HB3	1:C:553:ARG:HH22	1.85	0.41
1:C:589:LEU:HG	1:C:593:HIS:HD2	1.85	0.41
1:C:857:ASP:HA	1:C:859:VAL:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1810:LYS:O	1:C:1814:MET:HG2	2.20	0.41
1:C:1831:GLY:HA3	1:C:1836:PHE:HB2	2.02	0.41
1:C:2351:ASN:O	1:C:2355:ARG:HG2	2.18	0.41
1:C:3996:PHE:HB3	1:C:4020:GLN:OE1	2.20	0.41
1:C:4799:SER:HA	1:C:4812:HIS:CE1	2.55	0.41
1:C:4852:THR:HG21	1:C:4883:TYR:HB2	2.01	0.41
1:E:1667:LEU:HD23	1:E:1710:GLY:CA	2.48	0.41
1:E:2340:PHE:CG	1:E:2435:ARG:NH1	2.87	0.41
1:E:4053:SER:HA	1:E:4056:GLU:HB3	2.01	0.41
1:G:665:GLU:OE2	1:G:802:PHE:HB3	2.20	0.41
1:G:1232:ARG:HG3	1:G:1828:ASP:OD2	2.19	0.41
1:A:207:SER:OG	1:A:208:CYS:N	2.51	0.41
1:A:541:SER:HB2	1:A:577:ILE:HD12	2.02	0.41
1:A:696:PRO:HG2	1:A:1613:LEU:HD22	2.02	0.41
1:A:718:GLY:H	1:A:737:LEU:HG	1.85	0.41
1:A:765:GLN:NE2	1:A:1478:ASP:HA	2.35	0.41
1:A:1074:ILE:HG23	1:A:1115:LEU:HD11	2.03	0.41
1:A:1087:ARG:NH1	1:A:1221:GLU:O	2.49	0.41
1:A:1944:GLU:HG3	1:A:2126:ARG:NH1	2.35	0.41
1:A:2507:ASP:CG	1:A:2559:LEU:HD22	2.40	0.41
1:A:4653:VAL:HA	1:A:4656:LEU:HG	2.02	0.41
1:A:4685:GLY:O	1:A:4689:THR:N	2.53	0.41
1:C:628:GLY:C	1:C:630:GLU:H	2.23	0.41
1:C:643:SER:HA	1:C:782:SER:HA	2.02	0.41
1:C:712:TYR:HB3	1:C:768:PHE:CZ	2.55	0.41
1:C:1089:TYR:CB	1:C:1223:PHE:HB3	2.50	0.41
1:C:1297:PHE:CE1	1:C:1519:LEU:HD11	2.55	0.41
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.55	0.41
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.83	0.41
1:C:4641:PRO:O	1:C:4644:TRP:HB3	2.20	0.41
1:E:530:ILE:O	1:E:530:ILE:CG2	2.68	0.41
1:E:1074:ILE:HG23	1:E:1115:LEU:HD11	2.02	0.41
1:E:1868:PRO:HD3	1:E:1925:GLY:HA3	2.02	0.41
2:F:25:HIS:HD2	2:F:104:LEU:HD21	1.85	0.41
2:F:58:GLY:HA3	2:F:76:ILE:HG23	2.02	0.41
1:G:116:MET:HE1	1:G:139:GLU:OE2	2.21	0.41
1:G:449:ILE:HG12	1:G:525:LEU:HA	2.01	0.41
1:G:626:LEU:HB2	1:G:627:PRO:HD3	2.01	0.41
1:G:765:GLN:NE2	1:G:1478:ASP:HA	2.35	0.41
1:G:792:LEU:HD22	1:G:799:GLU:O	2.20	0.41
1:G:1074:ILE:O	1:G:1238:PHE:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1433:TYR:CD2	1:G:1583:GLU:HB2	2.55	0.41
1:G:1944:GLU:HG3	1:G:2126:ARG:NH1	2.35	0.41
1:G:2144:ILE:HD11	1:G:2197:LEU:HD11	2.02	0.41
1:G:2335:LEU:O	1:G:2339:VAL:HG22	2.19	0.41
1:G:3645:PRO:HB2	1:G:3648:ARG:HB3	2.02	0.41
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.53	0.41
1:A:3886:ARG:HD3	1:A:3960:GLN:HE22	1.86	0.41
1:A:3915:ILE:HD13	1:A:3915:ILE:HG21	1.75	0.41
1:A:4562:LEU:HD21	1:A:4656:LEU:CD1	2.49	0.41
1:A:4631:PHE:CE2	1:A:4633:GLU:HB3	2.55	0.41
1:A:4951:LYS:O	1:A:4955:GLU:HG2	2.20	0.41
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.96	0.41
1:C:530:ILE:O	1:C:530:ILE:CG2	2.69	0.41
1:C:665:GLU:HB2	1:C:792:LEU:HB2	2.02	0.41
1:C:3767:GLN:OE1	1:C:3809:ASN:ND2	2.42	0.41
1:C:4693:GLY:O	1:C:4695:ASP:N	2.52	0.41
1:C:4865:LYS:HB2	1:C:4874:MET:HB3	2.00	0.41
1:C:4913:ARG:NH1	1:C:4917:ASP:HB2	2.36	0.41
1:E:111:HIS:CD2	1:E:113:HIS:H	2.39	0.41
1:E:1293:LEU:HD23	1:E:1584:ARG:HG2	2.01	0.41
1:E:1528:THR:HG22	1:E:1538:THR:H	1.85	0.41
1:E:1715:LEU:HD21	1:E:1807:LEU:HD11	2.01	0.41
1:G:667:MET:HA	1:G:743:VAL:HA	2.02	0.41
1:G:1652:GLU:OE2	1:G:1655:GLU:OE2	2.38	0.41
1:G:1853:ILE:O	1:G:1854:PHE:HB2	2.21	0.41
1:G:3666:ASP:O	1:G:3669:PHE:HD2	2.02	0.41
1:G:4154:VAL:O	1:G:4154:VAL:HG13	2.21	0.41
1:G:4235:VAL:HG21	1:G:5019:TRP:CH2	2.55	0.41
2:H:29:MET:HG2	2:H:98:VAL:O	2.20	0.41
1:A:64:ILE:O	1:A:111:HIS:HE1	2.04	0.41
1:A:101:LEU:HD22	1:A:107:ILE:HG21	2.01	0.41
1:A:712:TYR:HB3	1:A:768:PHE:CZ	2.55	0.41
1:A:1211:LEU:O	1:A:1213:PHE:N	2.53	0.41
1:A:3924:LEU:O	1:A:3928:GLU:HG3	2.20	0.41
1:A:4661:TYR:HE2	1:A:4789:PHE:HB2	1.84	0.41
2:B:18:ARG:NH1	2:B:51:GLY:HA3	2.36	0.41
1:C:101:LEU:HD22	1:C:107:ILE:HG21	2.02	0.41
1:C:1528:THR:HG22	1:C:1538:THR:H	1.85	0.41
1:C:1734:TYR:HB2	1:C:2141:ALA:HB2	2.01	0.41
1:C:1944:GLU:HG3	1:C:2126:ARG:NH1	2.35	0.41
1:E:717:ASP:O	1:E:720:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:792:LEU:HD22	1:E:799:GLU:O	2.20	0.41
1:E:857:ASP:HA	1:E:859:VAL:H	1.86	0.41
1:E:3996:PHE:HB3	1:E:4020:GLN:OE1	2.20	0.41
1:E:4631:PHE:CE2	1:E:4633:GLU:HB3	2.55	0.41
1:E:4779:LYS:O	1:E:4783:ILE:HG13	2.20	0.41
1:G:468:LEU:O	1:G:472:ARG:HG2	2.20	0.41
1:G:1110:ARG:HA	1:G:1111:PRO:HD2	1.84	0.41
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.84	0.41
1:G:1294:PRO:HD3	1:G:1549:PHE:CE1	2.56	0.41
1:G:3990:VAL:HG13	1:G:4051:SER:HB2	2.02	0.41
1:G:4023:MET:O	1:G:4027:LEU:HG	2.19	0.41
1:G:4779:LYS:O	1:G:4783:ILE:HG13	2.21	0.41
1:A:102:LEU:HD22	1:A:160:GLY:O	2.20	0.41
1:A:667:MET:HA	1:A:743:VAL:HA	2.01	0.41
1:A:840:VAL:HG12	1:A:1199:VAL:HG22	2.03	0.41
1:A:1187:GLY:HA2	1:A:1188:PHE:HA	1.91	0.41
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.54	0.41
1:A:2907:PRO:O	1:A:2910:THR:OG1	2.16	0.41
1:A:3955:MET:O	1:A:4019:LEU:HD12	2.21	0.41
1:A:4989:MET:O	1:A:4993:MET:HG2	2.20	0.41
1:C:414:PHE:O	1:C:418:LEU:HD13	2.20	0.41
1:C:575:LEU:HD22	1:C:606:LEU:HA	2.02	0.41
1:C:597:HIS:CE1	1:C:1661:ARG:HH12	2.39	0.41
1:C:1074:ILE:HG23	1:C:1115:LEU:HD11	2.02	0.41
1:C:3651:ASN:O	1:C:3655:GLU:HG2	2.21	0.41
1:C:4666:VAL:HG13	1:C:4783:ILE:HG12	2.01	0.41
1:C:4813:LEU:HD23	1:C:4813:LEU:HA	1.89	0.41
1:C:4826:ILE:O	1:C:4830:VAL:HG23	2.21	0.41
1:E:64:ILE:O	1:E:111:HIS:HE1	2.04	0.41
1:E:622:THR:HG21	1:E:1681:VAL:HG13	2.00	0.41
1:E:765:GLN:NE2	1:E:1478:ASP:HA	2.35	0.41
1:E:1297:PHE:CE1	1:E:1519:LEU:HD11	2.55	0.41
1:E:1736:VAL:HA	1:E:1737:PRO:HD2	1.85	0.41
1:E:2799:GLU:O	1:E:2803:GLU:HG2	2.19	0.41
1:E:4172:GLU:HA	1:E:4175:ARG:HH12	1.85	0.41
1:E:4579:PHE:HB2	1:E:4631:PHE:CE1	2.55	0.41
1:G:292:ALA:O	1:G:299:LEU:HD12	2.21	0.41
1:G:495:ASN:HB3	1:G:553:ARG:HH22	1.85	0.41
1:G:1769:THR:OG1	1:G:1770:SER:N	2.53	0.41
1:G:1831:GLY:HA3	1:G:1836:PHE:HB2	2.02	0.41
1:G:3959:LYS:HG3	1:G:4022:ASP:OD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4693:GLY:O	1:G:4695:ASP:N	2.53	0.41
1:G:4703:ARG:O	1:G:4706:LEU:HG	2.20	0.41
1:A:111:HIS:CD2	1:A:113:HIS:H	2.39	0.41
1:A:416:LYS:N	1:A:416:LYS:HD2	2.36	0.41
1:A:495:ASN:HB3	1:A:553:ARG:HH22	1.86	0.41
1:A:4028:LEU:HD23	1:A:4028:LEU:HA	1.80	0.41
1:A:4861:LYS:HE2	1:A:4907:ASP:OD2	2.21	0.41
1:C:484:LEU:HD11	1:C:536:ASN:OD1	2.20	0.41
1:C:715:GLY:HA2	1:C:719:LEU:HA	2.01	0.41
1:C:1075:PHE:CE1	1:C:1238:PHE:HB3	2.56	0.41
1:C:1086:GLY:O	1:C:1155:LEU:HD12	2.21	0.41
1:C:1433:TYR:CD2	1:C:1583:GLU:HB2	2.55	0.41
1:C:2862:LEU:HD21	1:C:2929:PHE:HB2	2.02	0.41
1:C:3775:ALA:O	1:C:3778:MET:HB3	2.21	0.41
1:C:3955:MET:O	1:C:4019:LEU:HD12	2.21	0.41
1:C:4208:PRO:HB2	1:C:4209:GLN:H	1.70	0.41
1:C:4856:PHE:HE1	1:C:4877:ASP:O	2.04	0.41
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.55	0.41
1:E:626:LEU:HB3	1:E:1688:HIS:CE1	2.56	0.41
1:E:665:GLU:OE2	1:E:802:PHE:HB3	2.20	0.41
1:E:840:VAL:HG12	1:E:1199:VAL:HG22	2.03	0.41
1:E:2100:HIS:HB3	1:E:2104:ARG:NH1	2.36	0.41
1:E:3817:LEU:HD13	1:E:3899:PHE:CD1	2.56	0.41
1:E:4550:LYS:HE3	1:E:4550:LYS:HB2	1.85	0.41
1:E:4685:GLY:O	1:E:4689:THR:N	2.53	0.41
1:E:4686:LEU:HA	1:E:4690:GLU:H	1.86	0.41
1:E:4826:ILE:O	1:E:4830:VAL:HG23	2.21	0.41
1:E:4989:MET:O	1:E:4993:MET:HG2	2.20	0.41
1:G:491:ILE:HG22	1:G:495:ASN:ND2	2.36	0.41
1:G:597:HIS:CE1	1:G:1661:ARG:HH12	2.39	0.41
1:G:639:ASN:HA	1:G:1635:THR:HG22	2.02	0.41
1:G:752:VAL:HG12	1:G:754:SER:H	1.85	0.41
1:G:1528:THR:HG22	1:G:1538:THR:H	1.85	0.41
1:G:2340:PHE:CD1	1:G:2435:ARG:NH1	2.81	0.41
1:G:4097:MET:HG3	1:G:4108:ILE:CG2	2.51	0.41
1:G:4218:ILE:HG22	1:G:4950:VAL:HG13	2.02	0.41
1:G:4856:PHE:HE1	1:G:4877:ASP:O	2.04	0.41
2:H:18:ARG:NH1	2:H:51:GLY:HA3	2.35	0.41
1:A:102:LEU:HD12	1:A:105:HIS:CE1	2.55	0.41
1:A:639:ASN:HA	1:A:1635:THR:HG22	2.02	0.41
1:A:717:ASP:O	1:A:720:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:857:ASP:HA	1:A:859:VAL:H	1.85	0.41
1:A:1727:ARG:HD2	1:A:1772:ARG:HD3	2.02	0.41
1:A:1867:GLU:HG2	1:A:2097:LEU:HD22	2.03	0.41
1:A:2149:VAL:O	1:A:2153:MET:HG2	2.21	0.41
1:A:3898:ASP:OD1	1:A:3899:PHE:N	2.54	0.41
1:A:4577:LEU:HG	1:A:4580:TYR:HE2	1.84	0.41
1:C:102:LEU:HD12	1:C:105:HIS:CE1	2.55	0.41
1:C:292:ALA:O	1:C:299:LEU:HD12	2.21	0.41
1:C:544:LEU:O	1:C:548:VAL:HG23	2.21	0.41
1:C:718:GLY:H	1:C:737:LEU:HG	1.85	0.41
1:C:1082:THR:HG22	1:C:1189:LEU:HG	2.03	0.41
1:C:1126:GLY:HA2	1:C:1143:TRP:HE1	1.84	0.41
1:C:1586:ASN:O	1:C:1588:ALA:N	2.46	0.41
1:C:2100:HIS:HB3	1:C:2104:ARG:NH1	2.36	0.41
1:C:4563:ARG:NH1	1:C:4791:TYR:HE2	2.19	0.41
1:C:4661:TYR:CE2	1:C:4789:PHE:HB2	2.56	0.41
2:D:18:ARG:NH1	2:D:51:GLY:HA3	2.36	0.41
1:E:116:MET:HE1	1:E:139:GLU:OE2	2.20	0.41
1:E:1086:GLY:O	1:E:1155:LEU:HD12	2.21	0.41
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.84	0.41
1:E:1944:GLU:HG3	1:E:2126:ARG:NH1	2.35	0.41
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.53	0.41
1:E:2862:LEU:HD21	1:E:2929:PHE:HB2	2.02	0.41
1:E:3705:PHE:HZ	1:E:3721:LEU:HD23	1.85	0.41
1:E:3955:MET:O	1:E:4019:LEU:HD12	2.21	0.41
1:E:4562:LEU:HD21	1:E:4656:LEU:CD1	2.49	0.41
2:F:18:ARG:NH1	2:F:51:GLY:HA3	2.36	0.41
1:G:49:LEU:HA	1:G:49:LEU:HD23	1.76	0.41
1:G:64:ILE:O	1:G:111:HIS:HE1	2.04	0.41
1:G:416:LYS:HD2	1:G:416:LYS:N	2.36	0.41
1:G:1074:ILE:HG23	1:G:1115:LEU:HD11	2.03	0.41
1:G:1297:PHE:CE1	1:G:1519:LEU:HD11	2.55	0.41
1:G:4813:LEU:O	1:G:4816:ILE:HG22	2.20	0.41
1:G:4973:HIS:NE2	1:G:4976:GLU:HB3	2.35	0.41
1:A:414:PHE:O	1:A:418:LEU:HD13	2.20	0.41
1:A:544:LEU:O	1:A:548:VAL:HG23	2.20	0.41
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.56	0.41
1:A:1093:GLU:HA	1:A:1148:VAL:HG13	2.02	0.41
1:A:1652:GLU:OE2	1:A:1655:GLU:OE2	2.39	0.41
1:A:4053:SER:O	1:A:4056:GLU:HB3	2.21	0.41
1:A:4180:ARG:NH2	1:A:4981:GLU:OE1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4799:SER:HA	1:A:4812:HIS:CE1	2.55	0.41
1:A:4823:LEU:HD21	1:G:4839:MET:O	2.20	0.41
1:C:31:GLU:HA	1:C:32:GLN:HA	1.71	0.41
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.53	0.41
1:C:64:ILE:O	1:C:111:HIS:HE1	2.04	0.41
1:C:118:LEU:O	1:C:146:CYS:HA	2.21	0.41
1:C:626:LEU:HB3	1:C:1688:HIS:CE1	2.56	0.41
1:C:636:ASN:HD21	2:D:35:LYS:NZ	2.19	0.41
1:C:737:LEU:HB3	1:C:738:LEU:H	1.46	0.41
1:C:765:GLN:NE2	1:C:1478:ASP:HA	2.35	0.41
1:C:2735:PHE:CD2	1:C:2891:LYS:HD2	2.56	0.41
1:C:2758:PHE:CD2	1:C:2809:ILE:HD13	2.55	0.41
1:C:4053:SER:HA	1:C:4056:GLU:HB3	2.01	0.41
1:C:4686:LEU:HA	1:C:4690:GLU:H	1.86	0.41
1:E:643:SER:HA	1:E:782:SER:HA	2.01	0.41
1:E:649:PHE:CE1	1:E:776:LEU:HD23	2.56	0.41
1:E:696:PRO:HG2	1:E:1613:LEU:HD22	2.01	0.41
1:E:718:GLY:H	1:E:737:LEU:HG	1.85	0.41
1:E:1433:TYR:CD2	1:E:1583:GLU:HB2	2.55	0.41
1:E:1652:GLU:OE2	1:E:1655:GLU:OE2	2.39	0.41
1:E:4053:SER:O	1:E:4056:GLU:HB3	2.21	0.41
1:E:4563:ARG:NH1	1:E:4791:TYR:HE2	2.19	0.41
1:G:548:VAL:HG11	1:G:582:HIS:HA	2.03	0.41
1:G:840:VAL:HG12	1:G:1199:VAL:HG22	2.03	0.41
1:G:1286:MET:O	1:G:1287:LEU:HD12	2.21	0.41
1:G:3780:LEU:HD23	1:G:3819:TYR:CD2	2.56	0.41
1:G:3920:VAL:HG22	1:G:3965:LEU:HD21	2.02	0.41
1:A:484:LEU:HD11	1:A:536:ASN:OD1	2.20	0.41
1:A:548:VAL:HG11	1:A:582:HIS:HA	2.02	0.41
1:A:716:PHE:HD2	1:A:722:TRP:CH2	2.39	0.41
1:A:750:LEU:C	1:A:751:SER:HG	2.22	0.41
1:A:1086:GLY:O	1:A:1155:LEU:HD12	2.21	0.41
1:A:1433:TYR:CD2	1:A:1583:GLU:HB2	2.55	0.41
1:A:1810:LYS:O	1:A:1814:MET:HG2	2.21	0.41
1:A:1831:GLY:HA3	1:A:1836:PHE:HB2	2.02	0.41
1:A:1838:PHE:HB3	1:A:1842:LEU:HD13	2.03	0.41
1:A:1853:ILE:O	1:A:1854:PHE:HB2	2.21	0.41
1:A:1949:GLN:O	1:A:1952:GLN:HB3	2.21	0.41
1:A:2465:ASP:O	1:A:2467:VAL:N	2.52	0.41
1:A:2758:PHE:CD2	1:A:2809:ILE:HD13	2.55	0.41
1:A:2930:LEU:HD13	1:A:2937:VAL:HG21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3775:ALA:O	1:A:3778:MET:HB3	2.21	0.41
1:A:4071:ILE:O	1:A:4073:GLY:N	2.54	0.41
1:A:4181:ILE:HB	1:A:4988:TYR:CE1	2.56	0.41
1:A:4682:GLU:CD	1:A:4723:LYS:NZ	2.74	0.41
1:A:4888:TYR:O	1:A:4892:ARG:HD3	2.21	0.41
2:B:11:ASP:OD1	2:B:12:GLY:N	2.54	0.41
1:C:66:CYS:SG	1:C:205:ILE:HG13	2.61	0.41
1:C:416:LYS:N	1:C:416:LYS:HD2	2.36	0.41
1:C:491:ILE:HG22	1:C:495:ASN:ND2	2.36	0.41
1:C:648:ILE:CD1	1:C:815:VAL:HA	2.51	0.41
1:C:750:LEU:C	1:C:751:SER:HG	2.23	0.41
1:C:1715:LEU:HD21	1:C:1807:LEU:HD11	2.01	0.41
1:C:1734:TYR:CE2	1:C:2137:ALA:HB1	2.56	0.41
1:C:1961:PHE:CZ	1:C:2063:LEU:HD23	2.54	0.41
1:C:2381:GLU:HA	1:C:2384:ILE:HD12	2.03	0.41
1:C:4071:ILE:O	1:C:4073:GLY:N	2.54	0.41
1:C:4842:GLY:O	1:C:4846:VAL:HG23	2.21	0.41
2:D:11:ASP:OD1	2:D:12:GLY:N	2.54	0.41
2:D:25:HIS:HD2	2:D:104:LEU:HD21	1.86	0.41
1:E:667:MET:HA	1:E:743:VAL:HA	2.01	0.41
1:E:737:LEU:HD11	2:F:7:ILE:CG2	2.39	0.41
1:E:1143:TRP:HE3	1:E:1144:GLN:O	2.04	0.41
1:E:1286:MET:O	1:E:1287:LEU:HD12	2.21	0.41
1:E:1670:TYR:HB2	1:E:1714:LEU:HD21	2.02	0.41
1:E:1867:GLU:HG2	1:E:2097:LEU:HD22	2.02	0.41
1:E:3781:GLN:NE2	1:E:3819:TYR:OH	2.35	0.41
1:E:3886:ARG:HD3	1:E:3960:GLN:HE22	1.85	0.41
1:E:4017:LEU:O	1:E:4020:GLN:HB3	2.21	0.41
1:E:4192:ARG:HH11	1:E:5028:PHE:HB3	1.86	0.41
1:E:4217:PHE:CZ	1:E:4234:PHE:HA	2.56	0.41
1:E:4821:LYS:HD3	1:E:4824:ARG:HE	1.85	0.41
1:E:4951:LYS:O	1:E:4955:GLU:HG2	2.20	0.41
1:G:302:VAL:HG22	1:G:303:ASP:N	2.36	0.41
1:G:414:PHE:O	1:G:418:LEU:HD13	2.20	0.41
1:G:541:SER:HB2	1:G:577:ILE:HD12	2.03	0.41
1:G:679:ALA:CB	2:H:71:ARG:HH22	2.34	0.41
1:G:857:ASP:HA	1:G:859:VAL:H	1.85	0.41
1:G:1082:THR:HG22	1:G:1189:LEU:HG	2.03	0.41
1:G:1089:TYR:CD1	1:G:1152:MET:HG2	2.50	0.41
1:G:2149:VAL:O	1:G:2153:MET:HG2	2.21	0.41
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2870:GLU:O	1:G:2874:MET:HG3	2.21	0.41
1:G:3669:PHE:HA	1:G:3672:ARG:HG2	2.02	0.41
1:G:3794:VAL:O	1:G:3797:THR:OG1	2.26	0.41
1:G:3799:LYS:HD3	1:G:3883:ASP:OD2	2.21	0.41
1:G:4104:THR:O	1:G:4108:ILE:HG12	2.21	0.41
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.52	0.41
1:G:4851:TYR:HD2	1:G:4916:PHE:CE1	2.38	0.41
1:G:5027:CYS:H	1:G:5030:LYS:HB2	1.86	0.41
2:H:26:TYR:H	2:H:39:SER:HG	1.64	0.41
1:A:31:GLU:HA	1:A:32:GLN:HA	1.71	0.41
1:A:292:ALA:O	1:A:299:LEU:HD12	2.21	0.41
1:A:681:HIS:O	1:A:682:LEU:HD12	2.20	0.41
1:A:1075:PHE:CE1	1:A:1238:PHE:HB3	2.56	0.41
1:A:1082:THR:HG22	1:A:1189:LEU:HG	2.03	0.41
1:A:4563:ARG:NH1	1:A:4791:TYR:HE2	2.19	0.41
1:A:4661:TYR:CE2	1:A:4789:PHE:HB2	2.56	0.41
1:C:665:GLU:OE2	1:C:802:PHE:HB3	2.21	0.41
1:C:1286:MET:O	1:C:1287:LEU:HD12	2.21	0.41
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.54	0.41
1:C:3886:ARG:HD3	1:C:3960:GLN:HE22	1.86	0.41
1:C:4017:LEU:O	1:C:4020:GLN:HB3	2.21	0.41
1:E:41:GLY:HA2	1:E:137:LEU:HD12	2.02	0.41
1:E:541:SER:HB2	1:E:577:ILE:HD12	2.02	0.41
1:E:648:ILE:CD1	1:E:815:VAL:HA	2.51	0.41
1:E:1082:THR:HG22	1:E:1189:LEU:HG	2.03	0.41
1:E:1641:ILE:HA	1:E:1642:PRO:HD2	1.95	0.41
1:E:1725:ARG:HA	1:E:1725:ARG:HD3	1.93	0.41
1:E:3775:ALA:O	1:E:3778:MET:HB3	2.20	0.41
1:E:3782:MET:HB3	1:E:3797:THR:HG21	2.03	0.41
1:E:3899:PHE:O	1:E:3903:LEU:HG	2.21	0.41
1:E:4030:LEU:HD23	1:E:4031:LEU:HD12	2.02	0.41
1:E:4208:PRO:HG2	1:E:4210:VAL:HG23	2.03	0.41
1:E:4641:PRO:O	1:E:4644:TRP:HB3	2.20	0.41
1:E:4661:TYR:CE2	1:E:4789:PHE:HB2	2.55	0.41
1:G:118:LEU:O	1:G:146:CYS:HA	2.21	0.41
1:G:1810:LYS:O	1:G:1814:MET:HG2	2.20	0.41
1:G:4027:LEU:HD22	1:G:4044:MET:CE	2.45	0.41
1:G:4865:LYS:HB2	1:G:4874:MET:HB3	2.02	0.41
1:A:66:CYS:SG	1:A:205:ILE:HG13	2.61	0.40
1:A:244:LEU:HD22	1:A:375:LYS:NZ	2.36	0.40
1:A:1868:PRO:HD3	1:A:1925:GLY:HA3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3782:MET:HB3	1:A:3797:THR:HG21	2.03	0.40
1:A:3817:LEU:HD13	1:A:3899:PHE:CD1	2.55	0.40
1:A:4017:LEU:O	1:A:4020:GLN:HB3	2.21	0.40
1:A:4686:LEU:HA	1:A:4690:GLU:H	1.86	0.40
1:A:4826:ILE:HD11	1:G:4836:GLN:HB3	2.03	0.40
2:B:58:GLY:HA3	2:B:76:ILE:HG23	2.03	0.40
1:C:752:VAL:HG12	1:C:754:SER:H	1.85	0.40
1:C:840:VAL:HG12	1:C:1199:VAL:HG22	2.03	0.40
1:C:2149:VAL:O	1:C:2153:MET:HG2	2.21	0.40
1:C:2423:MET:HG3	1:C:2498:HIS:ND1	2.36	0.40
1:C:3782:MET:HB3	1:C:3797:THR:HG21	2.03	0.40
1:E:62:LEU:HD12	1:E:65:CYS:HB2	2.03	0.40
1:E:292:ALA:O	1:E:299:LEU:HD12	2.21	0.40
1:E:548:VAL:HG11	1:E:582:HIS:HA	2.03	0.40
1:E:716:PHE:HD2	1:E:722:TRP:CH2	2.39	0.40
1:E:1087:ARG:NH1	1:E:1221:GLU:O	2.47	0.40
1:E:1093:GLU:HA	1:E:1148:VAL:HG13	2.02	0.40
1:E:1810:LYS:O	1:E:1814:MET:HG2	2.20	0.40
1:E:1838:PHE:HB3	1:E:1842:LEU:HD13	2.03	0.40
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.38	0.40
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.55	0.40
1:G:1086:GLY:O	1:G:1155:LEU:HD12	2.21	0.40
1:G:1089:TYR:CB	1:G:1223:PHE:HB3	2.51	0.40
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.41	0.40
1:G:4813:LEU:HA	1:G:4813:LEU:HD23	1.90	0.40
1:G:4869:GLU:O	1:G:4871:GLU:N	2.44	0.40
1:A:26:ALA:HB2	1:A:182:LEU:HD21	2.03	0.40
1:A:302:VAL:HG22	1:A:303:ASP:N	2.36	0.40
1:A:472:ARG:NE	1:A:532:GLY:HA3	2.36	0.40
1:A:1286:MET:O	1:A:1287:LEU:HD12	2.21	0.40
1:A:3899:PHE:O	1:A:3903:LEU:HG	2.21	0.40
1:C:679:ALA:CB	2:D:71:ARG:HH22	2.35	0.40
1:C:717:ASP:O	1:C:720:HIS:NE2	2.54	0.40
1:C:790:ARG:HH21	1:C:1625:GLY:CA	2.34	0.40
1:C:1670:TYR:HB2	1:C:1714:LEU:HD21	2.02	0.40
1:C:1762:LEU:HA	1:C:1763:PRO:HD2	1.92	0.40
1:C:2094:LEU:HA	1:C:2097:LEU:HG	2.04	0.40
1:C:3898:ASP:OD1	1:C:3899:PHE:N	2.54	0.40
1:C:4208:PRO:HG2	1:C:4210:VAL:HG23	2.03	0.40
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.56	0.40
1:E:66:CYS:SG	1:E:205:ILE:HG13	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:441:VAL:HG12	1:E:445:LEU:HD13	2.02	0.40
1:E:639:ASN:HA	1:E:1635:THR:HG22	2.02	0.40
1:E:2496:PRO:HB2	1:E:2552:ARG:HD2	2.03	0.40
1:G:111:HIS:CD2	1:G:113:HIS:H	2.38	0.40
1:G:441:VAL:HG12	1:G:445:LEU:HD13	2.02	0.40
1:G:1143:TRP:HE3	1:G:1144:GLN:O	2.04	0.40
1:G:1781:CYS:SG	1:G:1783:VAL:HG22	2.62	0.40
1:G:4175:ARG:HB3	1:G:4176:PRO:HD3	2.03	0.40
1:G:4208:PRO:HB2	1:G:4209:GLN:H	1.72	0.40
1:A:118:LEU:O	1:A:146:CYS:HA	2.21	0.40
1:A:648:ILE:CD1	1:A:815:VAL:HA	2.52	0.40
1:A:752:VAL:HG12	1:A:754:SER:H	1.85	0.40
1:A:1287:LEU:HD22	1:A:1556:PRO:HG3	2.03	0.40
1:A:3927:GLN:CD	1:A:3988:ALA:HA	2.42	0.40
1:A:3984:ARG:HH21	1:A:3984:ARG:HD2	1.70	0.40
1:C:223:PHE:CD1	1:C:230:CYS:HB3	2.54	0.40
1:C:589:LEU:HG	1:C:593:HIS:CD2	2.57	0.40
1:C:716:PHE:HD2	1:C:722:TRP:CH2	2.39	0.40
1:C:1248:VAL:HA	1:C:1249:PRO:HD3	1.88	0.40
1:C:1838:PHE:HB3	1:C:1842:LEU:HD13	2.04	0.40
1:C:1958:LEU:HD13	1:C:2134:LEU:HD11	2.03	0.40
1:C:2160:GLY:O	1:C:2164:SER:N	2.51	0.40
1:C:3984:ARG:HH21	1:C:3984:ARG:HD2	1.72	0.40
1:C:4550:LYS:HB2	1:C:4550:LYS:HE3	1.84	0.40
1:C:4913:ARG:HH12	1:C:4917:ASP:HB2	1.86	0.40
1:C:4934:GLY:HA2	1:C:4937:ILE:HG12	2.03	0.40
1:E:102:LEU:HD12	1:E:105:HIS:CE1	2.57	0.40
1:E:752:VAL:HG12	1:E:754:SER:H	1.85	0.40
1:E:1248:VAL:HA	1:E:1249:PRO:HD3	1.89	0.40
1:E:1853:ILE:O	1:E:1854:PHE:HB2	2.21	0.40
1:E:1949:GLN:O	1:E:1952:GLN:HB3	2.22	0.40
1:E:3651:ASN:O	1:E:3655:GLU:HG2	2.21	0.40
1:E:4653:VAL:HA	1:E:4656:LEU:HG	2.02	0.40
1:E:4682:GLU:CD	1:E:4723:LYS:NZ	2.75	0.40
1:G:26:ALA:HB2	1:G:182:LEU:HD21	2.03	0.40
1:G:649:PHE:CE1	1:G:776:LEU:HD23	2.57	0.40
1:G:1075:PHE:CE1	1:G:1238:PHE:HB3	2.56	0.40
1:G:1077:ALA:O	1:G:1189:LEU:HD13	2.20	0.40
1:G:2133:GLU:HG3	1:G:2136:ARG:HH21	1.87	0.40
1:G:2495:VAL:HG12	1:G:2553:TYR:OH	2.22	0.40
1:A:530:ILE:O	1:A:530:ILE:CG2	2.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:626:LEU:HB2	1:A:627:PRO:HD3	2.01	0.40
1:A:1691:GLN:NE2	1:A:1802:ILE:HA	2.37	0.40
1:A:2100:HIS:HB3	1:A:2104:ARG:NH1	2.36	0.40
1:A:2124:LEU:CD2	1:A:3677:LEU:HD21	2.52	0.40
1:A:2381:GLU:HA	1:A:2384:ILE:HD12	2.03	0.40
1:A:2423:MET:HG3	1:A:2498:HIS:ND1	2.36	0.40
1:A:3651:ASN:O	1:A:3655:GLU:HG2	2.22	0.40
1:A:4852:THR:HG21	1:A:4883:TYR:HB2	2.03	0.40
1:C:737:LEU:HD11	2:D:7:ILE:CG2	2.39	0.40
1:C:1143:TRP:HE3	1:C:1144:GLN:O	2.04	0.40
1:C:1294:PRO:HD3	1:C:1549:PHE:CE1	2.57	0.40
1:C:1652:GLU:OE2	1:C:1655:GLU:OE2	2.38	0.40
1:C:1867:GLU:HG2	1:C:2097:LEU:HD22	2.03	0.40
1:C:1949:GLN:O	1:C:1952:GLN:HB3	2.21	0.40
1:C:3817:LEU:HD13	1:C:3899:PHE:CD1	2.56	0.40
1:C:4172:GLU:HA	1:C:4175:ARG:HH12	1.85	0.40
1:C:4686:LEU:O	1:C:4691:GLN:N	2.41	0.40
1:C:4878:ASP:O	1:C:4881:THR:OG1	2.31	0.40
1:E:56:GLN:HA	1:E:309:THR:OG1	2.22	0.40
1:E:302:VAL:HG22	1:E:303:ASP:N	2.36	0.40
1:E:665:GLU:HB2	1:E:792:LEU:HB2	2.02	0.40
1:E:689:THR:HA	1:E:778:PHE:HE1	1.86	0.40
1:E:1089:TYR:CB	1:E:1223:PHE:HB3	2.51	0.40
1:E:1294:PRO:HD3	1:E:1549:PHE:CE1	2.57	0.40
1:E:2139:PRO:HG3	1:E:3658:LYS:HZ3	1.86	0.40
1:E:2930:LEU:HD13	1:E:2937:VAL:HG21	2.03	0.40
1:E:3898:ASP:OD1	1:E:3899:PHE:N	2.55	0.40
1:E:4235:VAL:HG11	1:E:5019:TRP:CH2	2.56	0.40
2:F:11:ASP:OD1	2:F:12:GLY:N	2.54	0.40
1:G:1093:GLU:HA	1:G:1148:VAL:HG13	2.02	0.40
1:G:1671:ARG:HD2	1:G:1713:ASP:HB3	2.04	0.40
1:G:1745:ILE:O	1:G:1746:THR:OG1	2.35	0.40
1:G:2423:MET:HG3	1:G:2498:HIS:ND1	2.36	0.40
1:A:597:HIS:CE1	1:A:1661:ARG:HH12	2.39	0.40
1:A:1743:ARG:NH1	1:A:1963:GLU:HG3	2.37	0.40
1:A:2160:GLY:O	1:A:2164:SER:N	2.51	0.40
1:A:3705:PHE:HZ	1:A:3721:LEU:HD23	1.85	0.40
1:A:4208:PRO:HG2	1:A:4210:VAL:HG23	2.03	0.40
1:A:4681:LEU:HD21	1:A:4687:TYR:HB2	2.03	0.40
2:B:25:HIS:HD2	2:B:104:LEU:HD21	1.86	0.40
1:C:62:LEU:HD12	1:C:65:CYS:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:689:THR:HA	1:C:778:PHE:HE1	1.87	0.40
1:C:1089:TYR:CD1	1:C:1152:MET:HG2	2.50	0.40
1:C:1637:MET:O	1:C:1650:ILE:N	2.36	0.40
1:C:2124:LEU:HD11	1:C:2128:TYR:HE2	1.86	0.40
1:C:2495:VAL:HG12	1:C:2553:TYR:OH	2.22	0.40
1:C:4030:LEU:HD23	1:C:4031:LEU:HD12	2.02	0.40
1:C:4053:SER:O	1:C:4056:GLU:HB3	2.21	0.40
1:C:4181:ILE:HB	1:C:4988:TYR:CE1	2.56	0.40
1:C:4922:PHE:O	1:C:4927:ILE:HG12	2.22	0.40
1:E:472:ARG:NE	1:E:532:GLY:HA3	2.37	0.40
1:E:3780:LEU:HD23	1:E:3819:TYR:HD2	1.87	0.40
1:E:3786:CYS:O	1:E:3789:GLU:HG2	2.22	0.40
1:E:4686:LEU:HD12	1:E:4687:TYR:N	2.37	0.40
1:E:4927:ILE:O	1:E:4931:ILE:HG13	2.21	0.40
1:G:648:ILE:CD1	1:G:815:VAL:HA	2.51	0.40
1:G:665:GLU:HB2	1:G:792:LEU:HB2	2.02	0.40
1:G:1949:GLN:O	1:G:1952:GLN:HB3	2.21	0.40
1:G:2802:LYS:O	1:G:2806:ARG:HG3	2.20	0.40
1:G:3914:ASN:OD1	1:G:3916:ILE:HB	2.21	0.40
1:G:4930:ALA:HA	1:G:4933:GLN:HG2	2.02	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	5	36
1	C	3499/5037 (70%)	3211 (92%)	201 (6%)	87 (2%)	5	36
1	E	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	5	36
1	G	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	5	36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	D	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	F	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	H	105/108 (97%)	97 (92%)	7 (7%)	1 (1%)	15	52
All	All	14416/20580 (70%)	13232 (92%)	829 (6%)	355 (2%)	9	36

All (355) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	55	ALA
1	A	737	LEU
1	A	858	THR
1	A	896	VAL
1	A	916	PRO
1	A	1254	HIS
1	A	1457	TYR
1	A	2465	ASP
1	A	3806	ASN
1	A	4084	PRO
1	A	4121	GLU
1	A	4691	GLN
1	A	4868	ASP
1	A	4984	ASN
1	A	4985	LEU
1	C	55	ALA
1	C	737	LEU
1	C	858	THR
1	C	896	VAL
1	C	916	PRO
1	C	1254	HIS
1	C	1457	TYR
1	C	2465	ASP
1	C	3806	ASN
1	C	4084	PRO
1	C	4121	GLU
1	C	4691	GLN
1	C	4868	ASP
1	C	4984	ASN
1	C	4985	LEU
1	E	55	ALA
1	E	737	LEU

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Mol	Chain	Res	Type
1	E	858	THR
1	E	896	VAL
1	E	916	PRO
1	E	1254	HIS
1	E	2465	ASP
1	E	3806	ASN
1	E	4084	PRO
1	E	4121	GLU
1	E	4691	GLN
1	E	4868	ASP
1	E	4984	ASN
1	E	4985	LEU
1	G	55	ALA
1	G	737	LEU
1	G	858	THR
1	G	896	VAL
1	G	916	PRO
1	G	1254	HIS
1	G	1457	TYR
1	G	2465	ASP
1	G	3806	ASN
1	G	4084	PRO
1	G	4691	GLN
1	G	4868	ASP
1	G	4984	ASN
1	G	4985	LEU
1	A	610	ASN
1	A	673	PRO
1	A	698	GLY
1	A	817	PRO
1	A	939	VAL
1	A	1249	PRO
1	A	1465	ASP
1	A	1676	LEU
1	A	1746	THR
1	A	2341	VAL
1	A	4036	VAL
1	A	4128	PHE
1	A	4206	GLU
1	C	610	ASN
1	C	673	PRO
1	C	698	GLY

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Mol	Chain	Res	Type
1	C	817	PRO
1	C	939	VAL
1	C	1465	ASP
1	C	1676	LEU
1	C	1746	THR
1	C	2341	VAL
1	C	4036	VAL
1	C	4128	PHE
1	C	4206	GLU
1	E	610	ASN
1	E	673	PRO
1	E	698	GLY
1	E	939	VAL
1	E	1249	PRO
1	E	1457	TYR
1	E	1465	ASP
1	E	1676	LEU
1	E	1746	THR
1	E	2341	VAL
1	E	4036	VAL
1	E	4128	PHE
1	E	4206	GLU
1	G	610	ASN
1	G	673	PRO
1	G	698	GLY
1	G	939	VAL
1	G	1249	PRO
1	G	1465	ASP
1	G	1676	LEU
1	G	1746	THR
1	G	2341	VAL
1	G	3457	ASN
1	G	4036	VAL
1	G	4128	PHE
1	A	31	GLU
1	A	57	ASN
1	A	144	GLU
1	A	213	TYR
1	A	700	GLU
1	A	716	PHE
1	A	725	HIS
1	A	826	ILE

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Mol	Chain	Res	Type
1	A	827	LYS
1	A	1156	THR
1	A	1212	ARG
1	A	1539	PHE
1	A	1544	PRO
1	A	1854	PHE
1	A	1856	ASP
1	A	1934	SER
1	A	2466	LEU
1	A	2826	ALA
1	A	3456	GLN
1	A	3457	ASN
1	A	3714	SER
1	A	3842	LEU
1	A	3906	GLN
1	A	3941	ASP
1	A	4052	SER
1	A	4203	ALA
1	A	4208	PRO
1	A	4694	ASP
1	A	4973	HIS
1	C	31	GLU
1	C	144	GLU
1	C	213	TYR
1	C	700	GLU
1	C	716	PHE
1	C	725	HIS
1	C	826	ILE
1	C	827	LYS
1	C	1156	THR
1	C	1212	ARG
1	C	1249	PRO
1	C	1539	PHE
1	C	1544	PRO
1	C	1854	PHE
1	C	1856	ASP
1	C	1934	SER
1	C	2466	LEU
1	C	2826	ALA
1	C	3456	GLN
1	C	3457	ASN
1	C	3714	SER

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Mol	Chain	Res	Type
1	C	3842	LEU
1	C	3906	GLN
1	C	3941	ASP
1	C	4052	SER
1	C	4203	ALA
1	C	4208	PRO
1	C	4694	ASP
1	C	4973	HIS
1	E	31	GLU
1	E	144	GLU
1	E	213	TYR
1	E	700	GLU
1	E	716	PHE
1	E	725	HIS
1	E	817	PRO
1	E	826	ILE
1	E	827	LYS
1	E	1156	THR
1	E	1212	ARG
1	E	1539	PHE
1	E	1544	PRO
1	E	1854	PHE
1	E	1856	ASP
1	E	1934	SER
1	E	2466	LEU
1	E	2826	ALA
1	E	3456	GLN
1	E	3457	ASN
1	E	3714	SER
1	E	3842	LEU
1	E	3906	GLN
1	E	3941	ASP
1	E	4052	SER
1	E	4203	ALA
1	E	4208	PRO
1	E	4694	ASP
1	E	4973	HIS
1	G	31	GLU
1	G	57	ASN
1	G	144	GLU
1	G	213	TYR
1	G	700	GLU

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Mol	Chain	Res	Type
1	G	716	PHE
1	G	725	HIS
1	G	817	PRO
1	G	826	ILE
1	G	827	LYS
1	G	1156	THR
1	G	1212	ARG
1	G	1539	PHE
1	G	1544	PRO
1	G	1854	PHE
1	G	1856	ASP
1	G	1934	SER
1	G	2466	LEU
1	G	3658	LYS
1	G	3714	SER
1	G	3842	LEU
1	G	3843	ASP
1	G	3906	GLN
1	G	3941	ASP
1	G	4121	GLU
1	G	4203	ALA
1	G	4208	PRO
1	G	4694	ASP
1	G	4973	HIS
1	A	355	LEU
1	A	720	HIS
1	A	765	GLN
1	A	828	GLU
1	A	1624	LEU
1	A	1690	ASP
1	A	3695	PRO
1	A	3843	ASP
1	A	4087	LEU
1	A	4636	THR
1	A	4905	ALA
1	C	57	ASN
1	C	355	LEU
1	C	720	HIS
1	C	765	GLN
1	C	828	GLU
1	C	1624	LEU
1	C	1690	ASP

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Mol	Chain	Res	Type
1	C	3695	PRO
1	C	3843	ASP
1	C	4087	LEU
1	C	4636	THR
1	C	4905	ALA
1	E	57	ASN
1	E	355	LEU
1	E	720	HIS
1	E	765	GLN
1	E	828	GLU
1	E	1460	HIS
1	E	1624	LEU
1	E	1690	ASP
1	E	3695	PRO
1	E	3843	ASP
1	E	4087	LEU
1	E	4636	THR
1	E	4905	ALA
1	G	355	LEU
1	G	720	HIS
1	G	765	GLN
1	G	828	GLU
1	G	1624	LEU
1	G	1690	ASP
1	G	2826	ALA
1	G	3695	PRO
1	G	4087	LEU
1	G	4206	GLU
1	G	4636	THR
1	G	4637	GLY
1	G	4858	PHE
1	A	676	THR
1	A	818	ARG
1	A	1206	GLN
1	A	1538	THR
1	A	1589	PRO
1	A	1762	LEU
1	A	4637	GLY
1	C	676	THR
1	C	818	ARG
1	C	1206	GLN
1	C	1538	THR

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Mol	Chain	Res	Type
1	C	1589	PRO
1	C	1762	LEU
1	C	4637	GLY
1	E	676	THR
1	E	818	ARG
1	E	1538	THR
1	E	1589	PRO
1	E	1762	LEU
1	E	4637	GLY
1	G	676	THR
1	G	818	ARG
1	G	1206	GLN
1	G	1538	THR
1	G	1589	PRO
1	G	1762	LEU
1	G	3456	GLN
1	G	3718	GLU
1	G	3841	VAL
1	A	1082	THR
1	A	4858	PHE
1	C	724	GLY
1	C	1082	THR
1	E	724	GLY
1	E	1206	GLN
1	E	1482	ASN
1	E	4858	PHE
1	G	724	GLY
1	G	1082	THR
1	G	1482	ASN
1	G	1830	VAL
1	A	915	GLU
1	A	1830	VAL
1	A	2113	SER
1	A	3841	VAL
1	C	1830	VAL
1	C	2113	SER
1	C	3841	VAL
1	E	915	GLU
1	E	1830	VAL
1	E	2113	SER
1	G	915	GLU
1	G	2113	SER

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Mol	Chain	Res	Type
1	A	438	ILE
1	A	724	GLY
1	A	767	VAL
1	A	4872	PRO
1	C	438	ILE
1	C	767	VAL
1	C	915	GLU
1	C	4872	PRO
1	E	438	ILE
1	E	767	VAL
1	E	3841	VAL
1	E	4872	PRO
1	G	438	ILE
1	G	532	GLY
1	G	4072	VAL
1	A	532	GLY
1	C	532	GLY
1	C	842	PRO
1	E	532	GLY
1	G	767	VAL
1	G	842	PRO
1	G	4872	PRO
1	A	842	PRO
1	A	4072	VAL
1	C	4072	VAL
1	E	842	PRO
1	E	4072	VAL
2	H	86	GLY
1	A	1095	VAL

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2503/4276 (58%)	2489 (99%)	14 (1%)	86	92
1	C	2504/4276 (59%)	2490 (99%)	14 (1%)	86	92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	E	2504/4276 (59%)	2490 (99%)	14 (1%)	86	92
1	G	2502/4276 (58%)	2489 (100%)	13 (0%)	88	94
2	B	89/90 (99%)	89 (100%)	0	100	100
2	D	89/90 (99%)	89 (100%)	0	100	100
2	F	89/90 (99%)	89 (100%)	0	100	100
2	H	89/90 (99%)	89 (100%)	0	100	100
All	All	10369/17464 (59%)	10314 (100%)	55 (0%)	89	94

All (55) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	377	ILE
1	A	380	GLN
1	A	510	GLU
1	A	806	PRO
1	A	862	VAL
1	A	865	PRO
1	A	908	VAL
1	A	914	PRO
1	A	979	PRO
1	A	1055	PRO
1	A	1096	THR
1	A	2066	LEU
1	A	3884	LEU
1	A	4972	PRO
1	C	377	ILE
1	C	380	GLN
1	C	510	GLU
1	C	806	PRO
1	C	862	VAL
1	C	865	PRO
1	C	908	VAL
1	C	914	PRO
1	C	979	PRO
1	C	1055	PRO
1	C	1096	THR
1	C	2066	LEU
1	C	3884	LEU
1	C	4972	PRO
1	E	377	ILE

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Mol	Chain	Res	Type
1	E	380	GLN
1	E	510	GLU
1	E	806	PRO
1	E	862	VAL
1	E	865	PRO
1	E	908	VAL
1	E	914	PRO
1	E	979	PRO
1	E	1055	PRO
1	E	1096	THR
1	E	2066	LEU
1	E	3884	LEU
1	E	4972	PRO
1	G	377	ILE
1	G	380	GLN
1	G	510	GLU
1	G	806	PRO
1	G	865	PRO
1	G	908	VAL
1	G	914	PRO
1	G	979	PRO
1	G	1055	PRO
1	G	1096	THR
1	G	2066	LEU
1	G	4169	SER
1	G	4972	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (169) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	105	HIS
1	A	111	HIS
1	A	113	HIS
1	A	203	ASN
1	A	273	HIS
1	A	405	HIS
1	A	465	GLN
1	A	495	ASN
1	A	582	HIS
1	A	593	HIS
1	A	617	ASN

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Mol	Chain	Res	Type
1	A	681	HIS
1	A	1203	ASN
1	A	1254	HIS
1	A	1281	ASN
1	A	1640	HIS
1	A	1663	HIS
1	A	1665	HIS
1	A	1679	ASN
1	A	1691	GLN
1	A	1693	GLN
1	A	1719	HIS
1	A	1775	HIS
1	A	1953	HIS
1	A	2188	ASN
1	A	2196	ASN
1	A	2245	GLN
1	A	2856	ASN
1	A	3699	HIS
1	A	3771	HIS
1	A	3960	GLN
1	A	3970	GLN
1	A	3982	HIS
1	A	3998	HIS
1	A	4153	HIS
1	A	4223	ASN
1	A	4987	ASN
1	A	5006	GLN
2	B	25	HIS
2	B	87	HIS
1	C	23	GLN
1	C	105	HIS
1	C	111	HIS
1	C	113	HIS
1	C	203	ASN
1	C	273	HIS
1	C	405	HIS
1	C	465	GLN
1	C	495	ASN
1	C	582	HIS
1	C	593	HIS
1	C	617	ASN
1	C	681	HIS

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Mol	Chain	Res	Type
1	C	1203	ASN
1	C	1254	HIS
1	C	1281	ASN
1	C	1640	HIS
1	C	1663	HIS
1	C	1665	HIS
1	C	1679	ASN
1	C	1691	GLN
1	C	1693	GLN
1	C	1719	HIS
1	C	1775	HIS
1	C	2188	ASN
1	C	2196	ASN
1	C	2245	GLN
1	C	2260	ASN
1	C	2856	ASN
1	C	3699	HIS
1	C	3771	HIS
1	C	3960	GLN
1	C	3970	GLN
1	C	3982	HIS
1	C	3998	HIS
1	C	4153	HIS
1	C	4223	ASN
1	C	4650	HIS
1	C	4987	ASN
1	C	5006	GLN
2	D	25	HIS
2	D	87	HIS
1	E	23	GLN
1	E	105	HIS
1	E	111	HIS
1	E	113	HIS
1	E	203	ASN
1	E	218	HIS
1	E	273	HIS
1	E	405	HIS
1	E	465	GLN
1	E	495	ASN
1	E	582	HIS
1	E	593	HIS
1	E	617	ASN

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Mol	Chain	Res	Type
1	E	681	HIS
1	E	1203	ASN
1	E	1254	HIS
1	E	1281	ASN
1	E	1663	HIS
1	E	1665	HIS
1	E	1679	ASN
1	E	1691	GLN
1	E	1693	GLN
1	E	1719	HIS
1	E	1775	HIS
1	E	1953	HIS
1	E	2188	ASN
1	E	2196	ASN
1	E	2245	GLN
1	E	2856	ASN
1	E	3699	HIS
1	E	3771	HIS
1	E	3896	ASN
1	E	3960	GLN
1	E	3970	GLN
1	E	3982	HIS
1	E	3998	HIS
1	E	4153	HIS
1	E	4223	ASN
1	E	4650	HIS
1	E	4987	ASN
1	E	5006	GLN
2	F	25	HIS
2	F	87	HIS
1	G	23	GLN
1	G	105	HIS
1	G	111	HIS
1	G	113	HIS
1	G	203	ASN
1	G	273	HIS
1	G	405	HIS
1	G	461	HIS
1	G	465	GLN
1	G	495	ASN
1	G	582	HIS
1	G	593	HIS

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Mol	Chain	Res	Type
1	G	617	ASN
1	G	681	HIS
1	G	1203	ASN
1	G	1254	HIS
1	G	1281	ASN
1	G	1640	HIS
1	G	1663	HIS
1	G	1665	HIS
1	G	1679	ASN
1	G	1691	GLN
1	G	1693	GLN
1	G	1719	HIS
1	G	1775	HIS
1	G	1970	GLN
1	G	2188	ASN
1	G	2260	ASN
1	G	2856	ASN
1	G	3699	HIS
1	G	3851	ASN
1	G	3900	GLN
1	G	3960	GLN
1	G	3977	GLN
1	G	3994	HIS
1	G	3998	HIS
1	G	4153	HIS
1	G	4223	ASN
1	G	4707	ASN
1	G	4812	HIS
1	G	4987	ASN
2	H	25	HIS
2	H	87	HIS

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

## 5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

There are no non-standard protein/DNA/RNA residues in this entry.

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

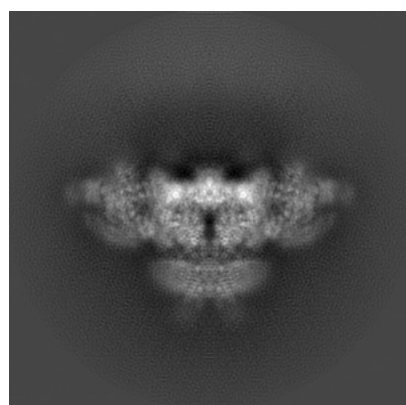
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9518. These allow visual inspection of the internal detail of the map and identification of artifacts.

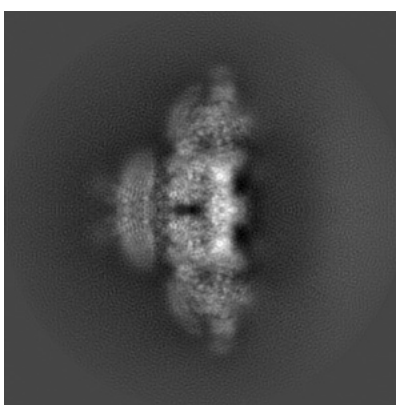
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

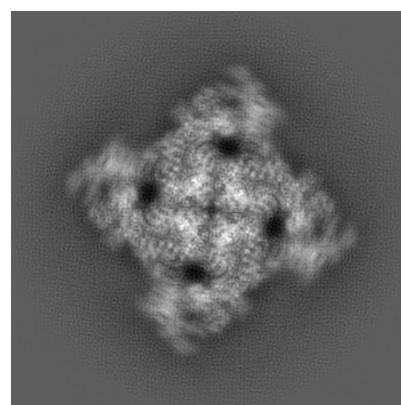
#### 6.1.1 Primary map



X



Y

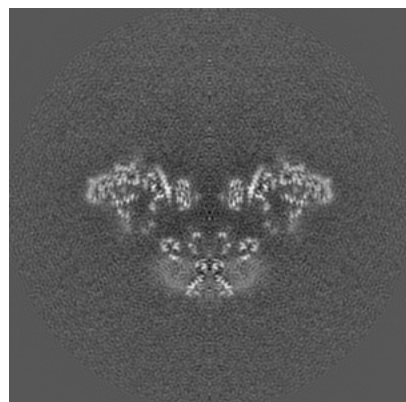


Z

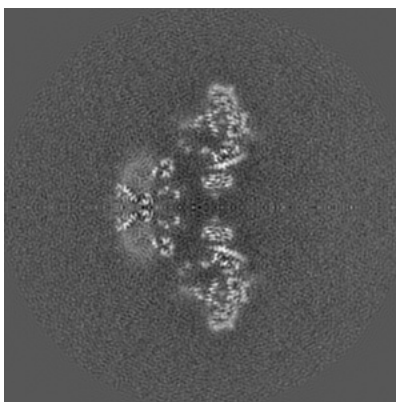
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

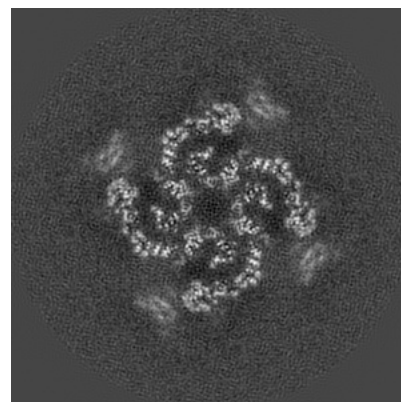
#### 6.2.1 Primary map



X Index: 180



Y Index: 180

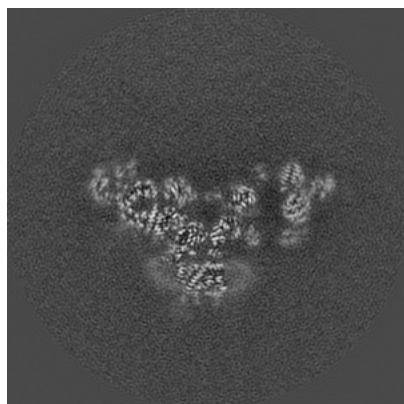


Z Index: 180

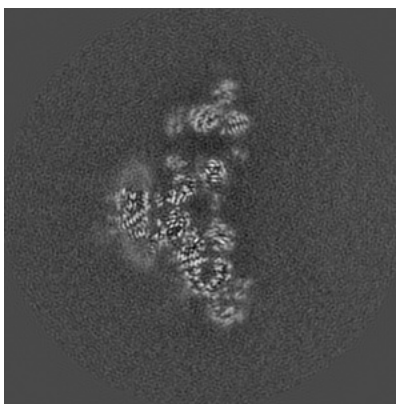
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

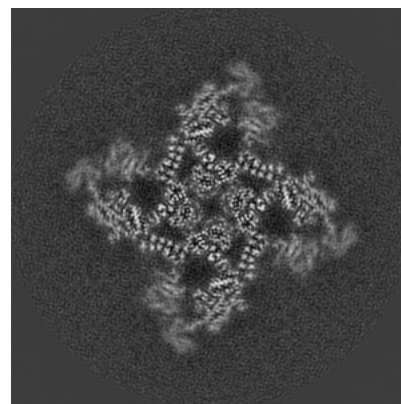
### 6.3.1 Primary map



X Index: 191



Y Index: 169

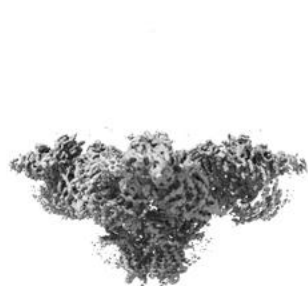


Z Index: 190

The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal surface views [i](#)

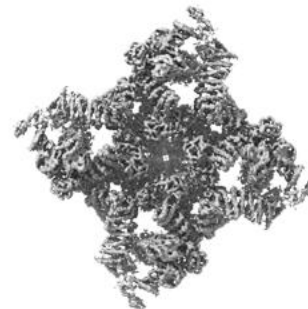
### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.085. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.



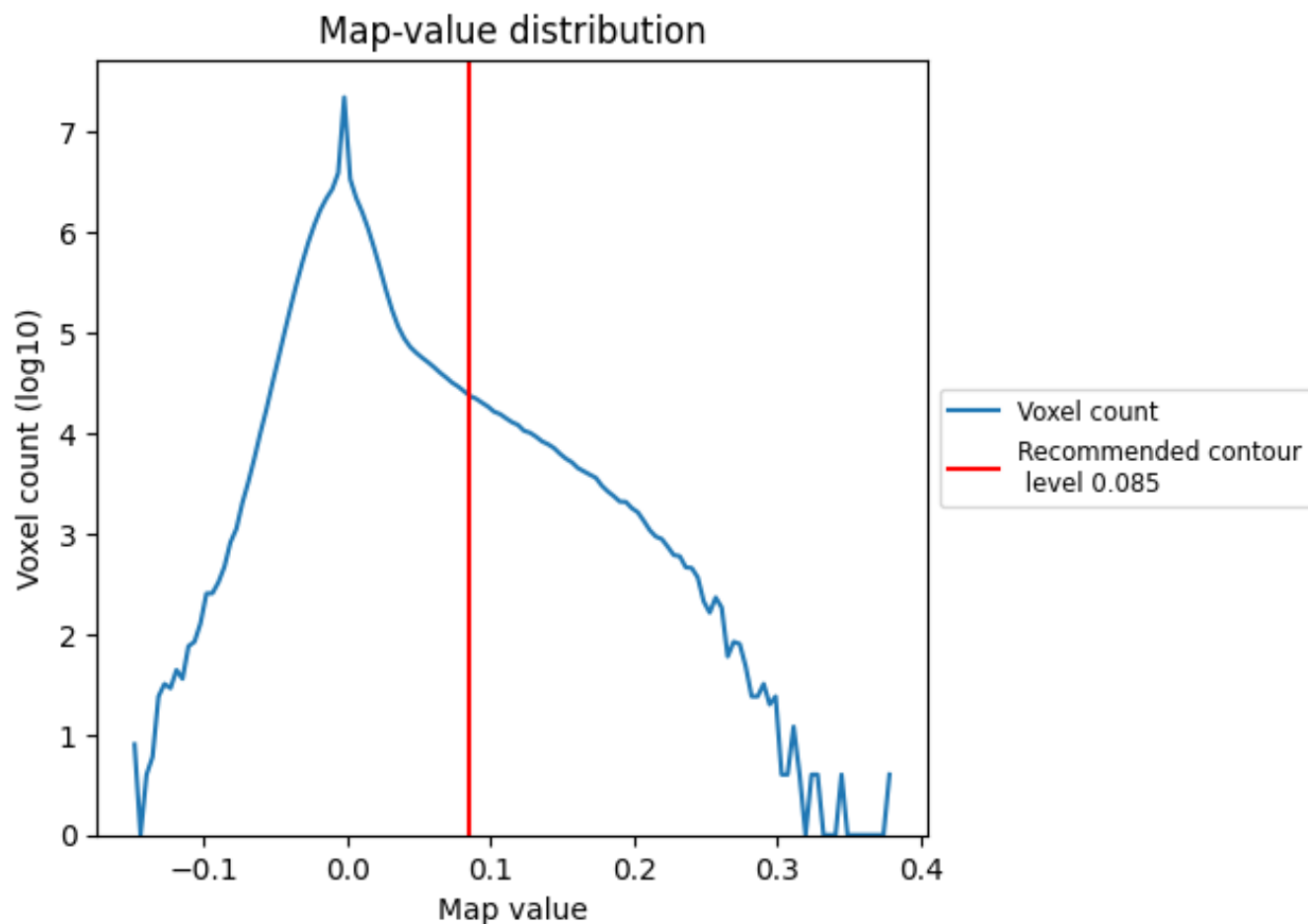
## 6.5 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

## 7 Map analysis [i](#)

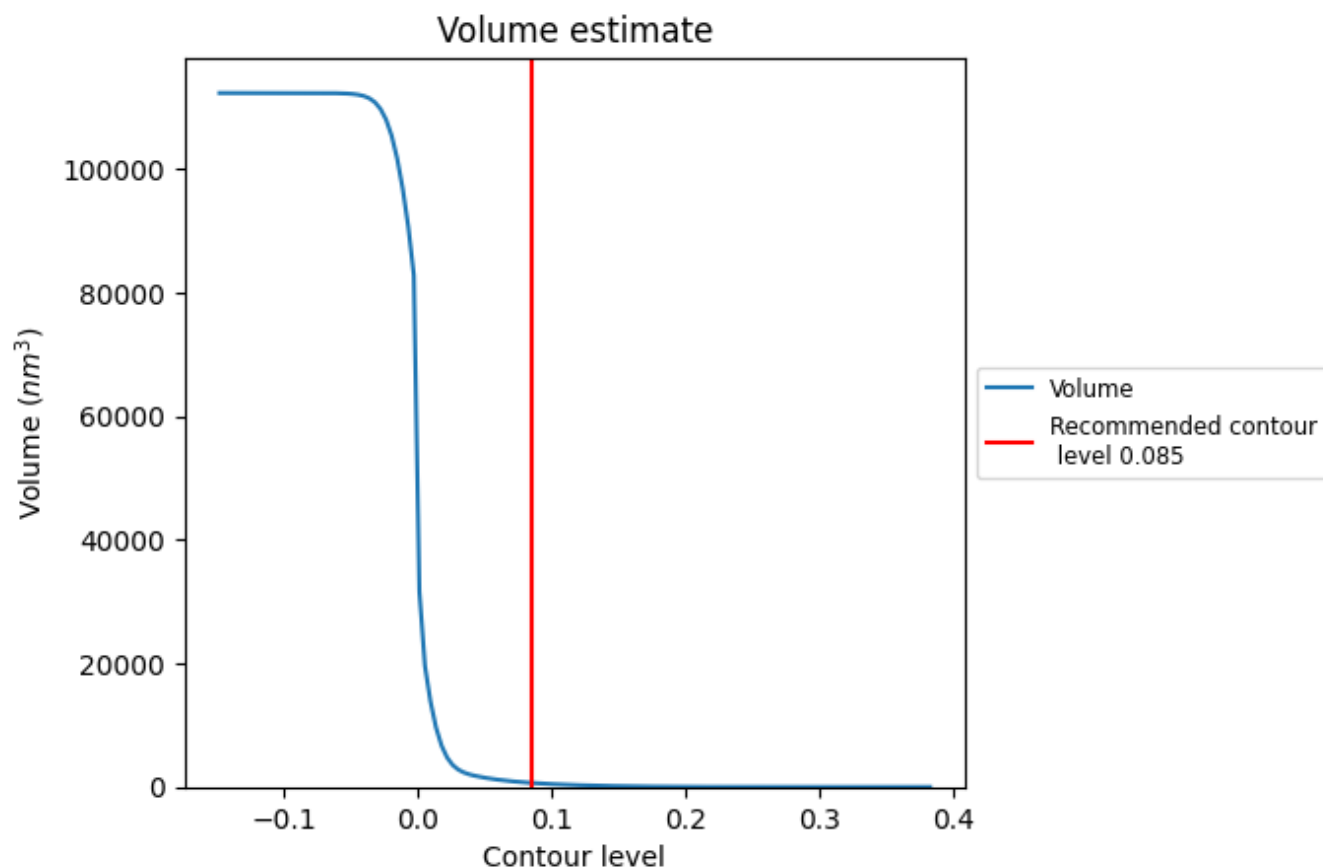
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

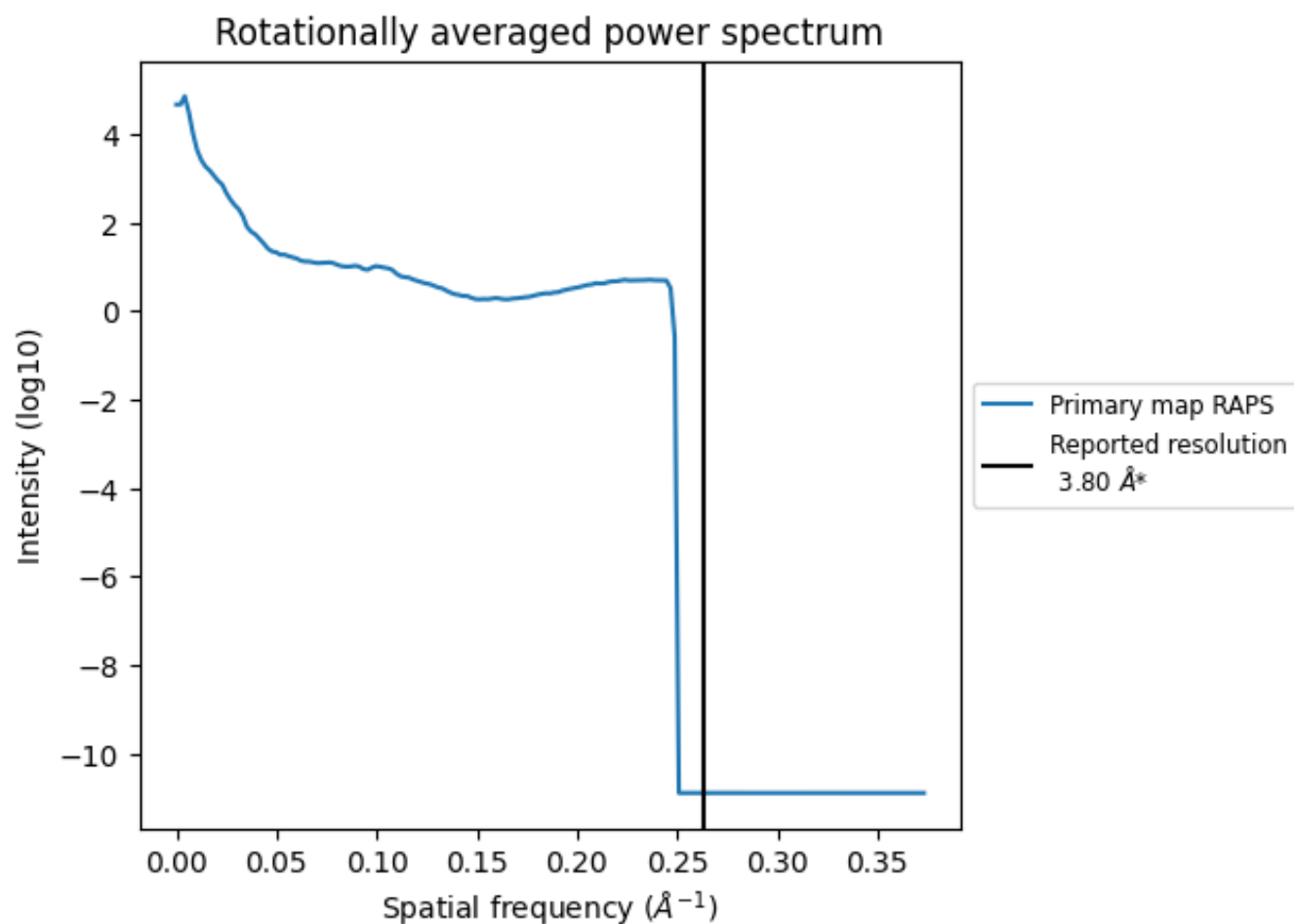
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 655 nm<sup>3</sup>; this corresponds to an approximate mass of 591 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

### 7.3 Rotationally averaged power spectrum ⓘ



\*Reported resolution corresponds to spatial frequency of 0.263 Å<sup>-1</sup>

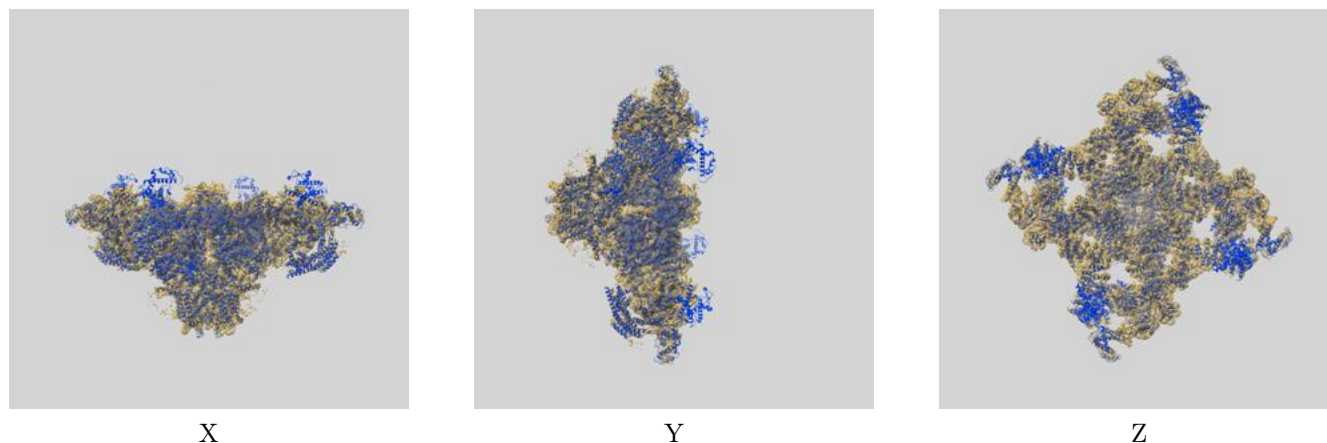
## 8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

## 9 Map-model fit [i](#)

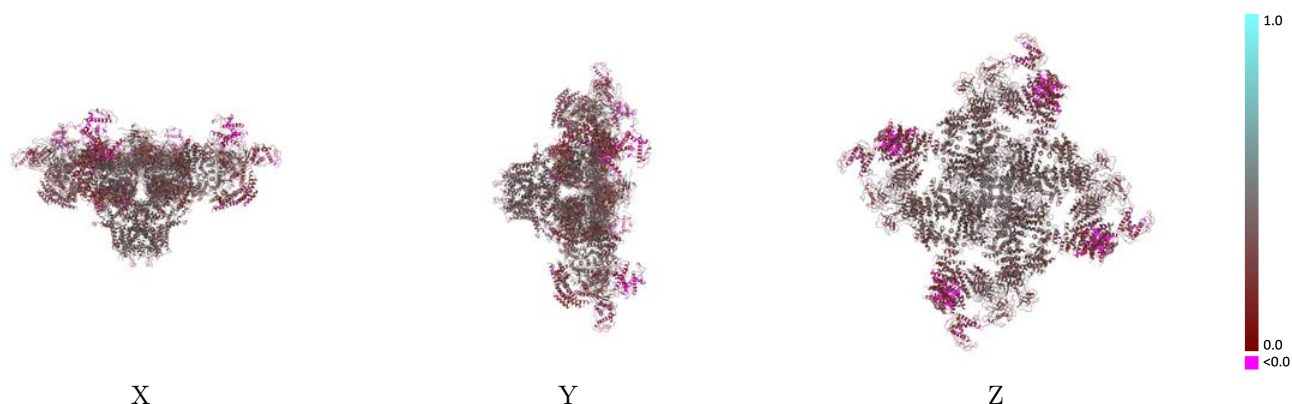
This section contains information regarding the fit between EMDB map EMD-9518 and PDB model 5GKY. Per-residue inclusion information can be found in [section 3](#) on [page 4](#).

### 9.1 Map-model overlay [i](#)



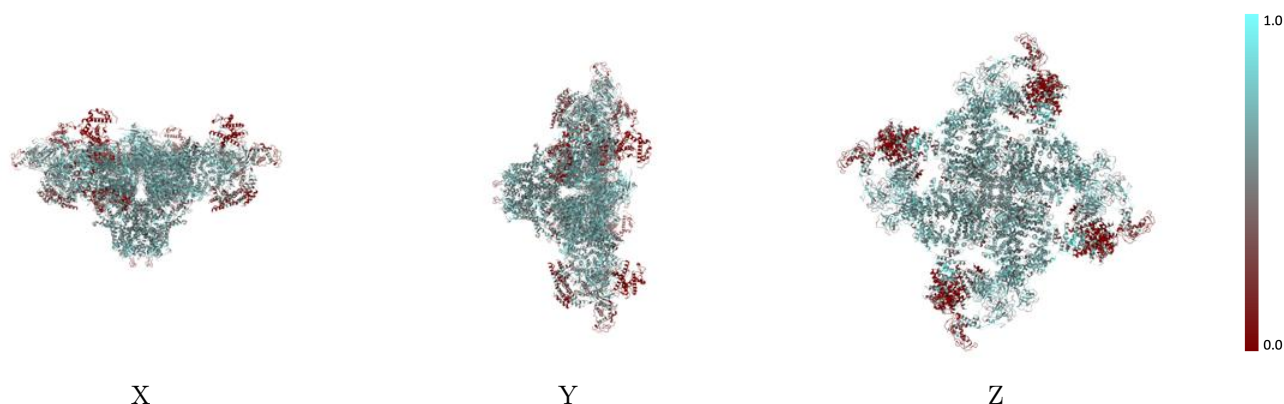
The images above show the 3D surface view of the map at the recommended contour level 0.085 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 9.2 Q-score mapped to coordinate model [i](#)



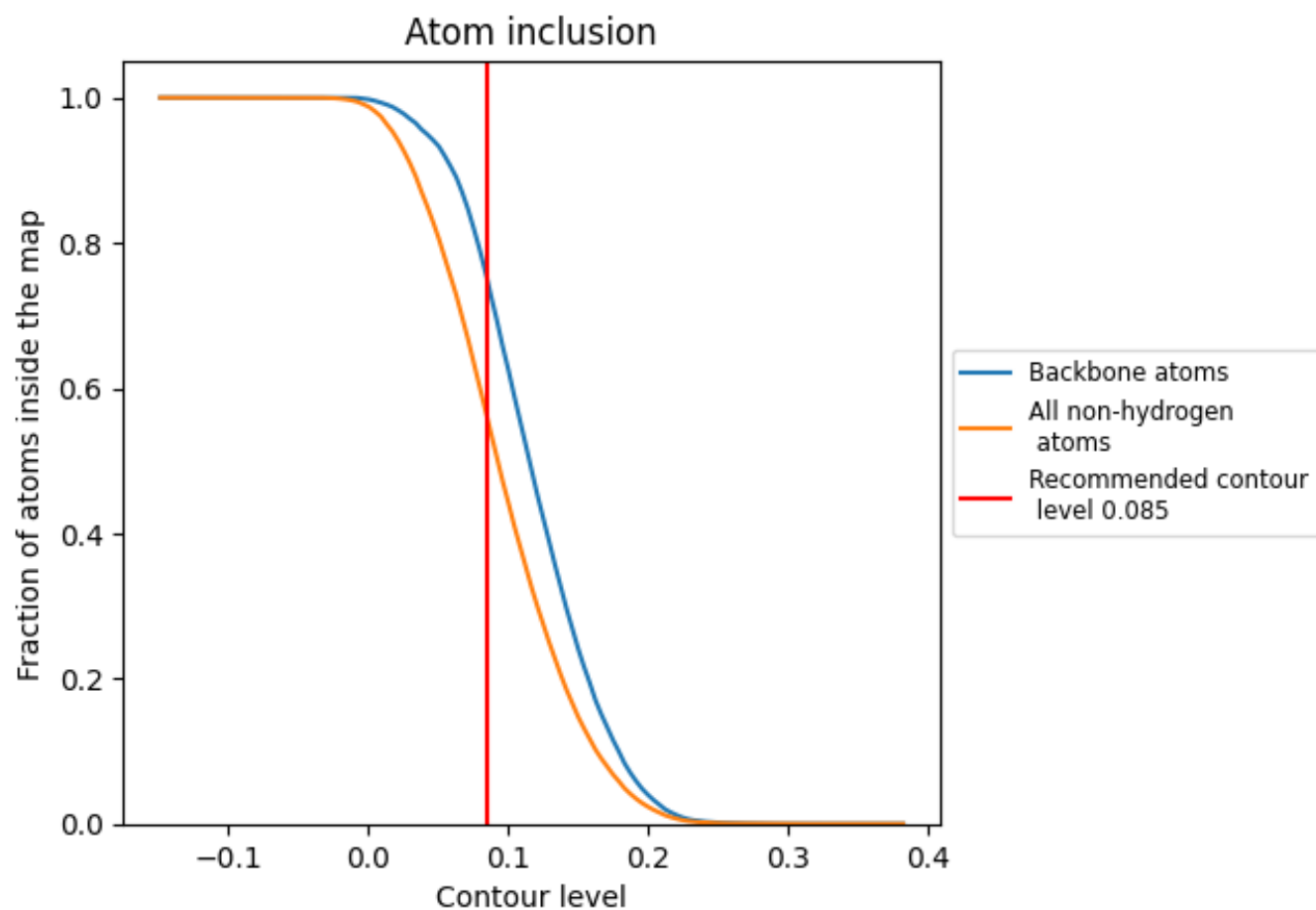
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

## 9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.085).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 75% of all backbone atoms, 56% of all non-hydrogen atoms, are inside the map.



9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.085) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div><div></div></div> 0.5631	<div><div></div></div> 0.3170
A	<div><div></div></div> 0.5629	<div><div></div></div> 0.3160
B	<div><div></div></div> 0.5760	<div><div></div></div> 0.3340
C	<div><div></div></div> 0.5627	<div><div></div></div> 0.3160
D	<div><div></div></div> 0.5760	<div><div></div></div> 0.3310
E	<div><div></div></div> 0.5628	<div><div></div></div> 0.3160
F	<div><div></div></div> 0.5735	<div><div></div></div> 0.3290
G	<div><div></div></div> 0.5626	<div><div></div></div> 0.3170
H	<div><div></div></div> 0.5735	<div><div></div></div> 0.3370

1.0

0.0

<0.0